ABSTRACT OF THE

Hunterian Oration.

Delivered in the Theatre of the Royal College of Surgeons, Feb. 14th, 1891,

BY JONATHAN HUTCHINSON, F.R.S., LL.D.,

EX-PRESIDENT OF THE COLLEGE.

[AFTER paying a tribute to the memory of the late Dr. Matthews Duncan and the late Professor Marshall, Mr. Hutchinson said]: The Hunterian Oration might with propriety be given in honour of the Hunter family, rather than of one of its members. I may go further, and say that it should not forget the Paul family either, for Paul was the maiden name of the mother of William, James, and John Hunter, and of the grandmother of Joanna and Dr. Matthew Baillie. May I venture on the practical suggestion that it would be a matter of social convenience, great help to bibliographists, and at the same time a mere act of justice to the maternal parentage which we all share, if the maiden name of the mother were always prefixed to that of the father? Thus, for one generation at least, we should recognise that our mothers have, with our fathers, an equal share in the credit accruing to the family name from the deeds of their children. Under such a plan we should have a William Arden-Shakespeare, a John Jeffrey-Milton, a John Paul-Hunter, and a Matthew Hunter-Baillie. John Hunter's brother William was exactly ten years his senior, and died ten years before him, each having enjoyed a life of sixty-five years.

William Hunter, when quite a youth, pledged himself to his friend Cullen that he would make his home, Long Calderwood, famous. He nobly fulfilled his promise, but he yet failed of the reward, simply because a brother, ten years his junior, of whom at the time he made no account, outstripped him and did it first. John was the first to be elected into the Royal Society, yet had there been no John Hunter, William would have been accounted a genius. His fame was and is deservedly very great, but his brother has eclipsed it. The similarity in the tastes and endowments of the two brothers was indeed remarkable. Both were resolute to base practical knowledge upon anatomical and physiological research. Both zealously taught anatomy. Both were indefatigable collectors of facts, and both made large museums. That got together by Dr. Hunter, and which he bequeathed to the University of Glasgow, is probably, as the work of an individual, second in value only to that which is our priceless possession here. If William displayed, perhaps, less of concentration of aim, it was possibly due to yet wider universality of tastes. He collected not only specimens in pathology and anatomy, but pictures, coins, and curios of all kinds. For some of these John also had desires, but as compared with his brother his energies were much more nearly restricted to biological objects. It must, perhaps, also be admitted that, although of almost equal energy and industry, William enjoyed, in somewhat less vigour, that faculty of insight which was the secret of much of John's success. It is not enough, however, to claim that part of the credit which attends the manifestation of genius should be given to the parents and predecessors of the individual concerned. Biology knows but little of hero worship, and all departures from her fundamental truths are unwise and mischievous. In proportion as we lose sight of the means by which really great men became what they were do we fail to learn the full lesson of their lives. To take a great man and treat his career not as representative but as phenomenal, to place him on a pedestal and claim for him the almost exclusive plaudits of his successors, is to rob his life of half its usefulness. The domain of science, as that of letters, is a republic. We crown no kings, we know nothing of oligarchs.

It has been too much the custom of Hunter's biographers—not, I gladly admit, of all—to represent him as the uneducated and uncouth son of a Scotch farmer, and as having been brought up for the trade of a cabinet-maker. Mr. Luther Holden, in his excellent Oration ten years ago, did much to correct these misapprehensions. Briefly, his maternal grandfather was the treasurer of Glasgow, and his father was of an old family—the Hunters of Hunterston. Here, again, biology may come to the aid of history. Surely it was not without its meaning, in reference to hereditary descent, that both the Hunter brothers suffered in early life, and through life, from that disease which has been named not only the *Dominus Morborum* but also the *Morbus Dominorum*, and of which it has been well said that it destroys more wise men than fools. Surely we may take the inheritance of gout thus strongly manifested as more conclusive proof of gentle blood than any which parish genealogies could possibly offer. I may add, in support of what I have just said as to the importance of not forgetting our mothers, that it was perhaps as likely that the inheritance came from the Glasgow treasurer as from the owner of Long Calderwood.

[Mr. Hutchinson proceeded to point out the historical events which occurred in the lifetime of William Hunter and the personages who were his contemporaries. He said]: Amongst those whom Hunter may have met in London were Wesley and Wilberforce, Adam Smith, Benjamin Franklin, Reynolds, Johnson, Grose the antiquary, Erasmus Darwin, Priestley, Banks, and Benjamin West. With the last two there is reason to think he was intimate. The French naturalist, M. Buffon, was born in 1707, and died in 1788. He began the publication of his great work on Natural History (forty-four volumes) in 1749, and the first thirty-five volumes were accessible to Hunter before the year 1788. In them the dissections and anatomical descriptions were chiefly by Daubenton. Whether Hunter possessed Buffon's works, or had even seen them, I do not know. Valuable as they unquestionably are, they do not display any material traces of that genius for systematic observation and scientific grouping of facts which is the special glory of Hunter's work. Hunter's true competitor in these respects was undoubtedly Cuvier, who visited London in 1813, and saw Hunter's museum after its removal to our College. He investigated its treasures with delight, and took back with him to Paris drawings of many of the specimens. To this list of botanists and naturalists who were Hunter's contemporaries the name of Linnæus must be added. He was Hunter's senior by twenty years, and died fifteen years before him. Whatever may be our conclusion as to his descent, it is, as has been pointed out by several of my predecessors in this function, a great mistake to class Hunter amongst self-taught men. From the time that he came to London, when scarcely twenty-one, he occupied a position in his brother's home and anatomical school, which afforded him unequalled opportunities. It is possible, but not certain, that before coming to London he had wasted two or three years by working as a cabinet-maker in Glasgow. There is no doubt that in boyhood he had received a good Scotch education in elementary matters, and that during his Glasgow life he must have had fair opportunities for its further development. I find it incredible that a brain so active, with such a thirst for knowledge and such a love of thought, could have been guilty of any material self-neglect during boyhood and adolescence. The child is father of the man; and I cannot doubt that John Hunter, as a boy at home and as a youth in Glasgow, displayed similar tastes and like aptitudes to those which attained such splendid development in his after life. He may have earned his wages in his brother-in-law's work-room, but he never was and never could have been a carpenter only.

Hunter was, we may suspect, not a great letter-writer, and his correspondence was probably as nothing compared to that which constitutes the burden of life to many of us in these days of the penny post. If we may take as an example his curt references to a case of fungus cerebri respecting which Dr. Jenner had consulted him, he did not enter into much detail in reference to the patients concerning whom he gave advice. Three letters contained scarcely as many lines each to the boy's case, whilst whole pages are devoted to questions about cuckoos, hedgehogs, and experiments on the heat of trees.

One of Hunter's secrets of strength was his patience. He speaks of having listened for an hour to the complaints of a gentleman who consulted him for impotence, and of having spent a whole night in thinking over a case of fractured patella. At another place we find him alluding to the thoughts which came to him at the fireside. He was not one of those who draw a strong distinction between business and pleasure, and who regard all that relates to the pursuit of professional knowledge as belonging to the former. I suspect, rather, that his times of highest enjoy-

ment were those in which he was most keenly in pursuit of surgical investigations. These were not to him merely the means of earning money—they were matters of the most real and deep interest, and, excepting from sheer fatigue, they were never laid aside, whether on holiday or at work.

I have not found any evidence that Hunter himself possessed artistic skill. He was fond of pictures, and valued himself on his appreciation of them. He possessed at the time of his death a very fair collection, one which sold for nearly £2000. It contained works by Hogarth, Reynolds, Loutherburg, and others, and it would—according to a valuation which one of Christie's firm gave to Sir James Paget, from whom I take these particulars—at the present time have been worth at least £10,000. There are hints in some of his letters that he not only bought pictures, but sometimes sold them again; and he several times alludes to their price and to the state of the art market. Those who occasionally frequent picture auctions, and are fond of cheap bargains, have at any rate a right to plead that in this weakness John Hunter gave them example. His brother William of course bought much more expensively, being a far richer man. A point which interests us much more deeply is to note the value which both the brothers set upon artistic illustrations of anatomical and pathological subjects. Dr. Hunter's splendid plates of the gravid uterus are well known. In the early editions they were executed without regard to expense, and they are but a small part of what had been executed under his direction of a similar kind. John Hunter never published a single paper or book the subject of which would admit of illustration, without accompanying his letterpress with a liberal supply of plates. He clearly regarded a drawing as coming next in value to the preparation itself, and as being essential to the full instruction of his reader. Our College possesses, in three large volumes which are now before me, the original drawings from which most of the illustrations published in his works were taken, together with many others. Most of them were probably from the pencil of Mr. Bell, an artist whom Hunter engaged to live with him in the house, so as to be always at hand. The original engagement was for twelve years, but was subsequently prolonged to fourteen. Bell was not an educated man, but was very skilful and painstaking in the kind of art which Hunter wanted. He was not by any means the only one who was employed for this purpose. I find that not a few of Hunter's best plates are signed by Reemsdyck, an artist who published, on his own account, a valuable folio illustrating some of the contents of the British Museum. We can understand the pleasure with which Hunter would have hailed the introduction of photography in aid of scientific illustration. His zeal in these matters was caught by his nephew Baillie; and even up to the present day, with all our successes in colour-printing, no more valuable illustrations of morbid anatomy exist than the series of engravings which Dr. Matthew Baillie published during the first years of this century. I cannot let the occasion pass without the remark that, were Hunter with us now, he would take a foremost part in the scheme which the Council of this College has in hand, to supplement the noble collection of anatomical and pathological preparations, of which his museum at present constitutes the centre, by an equally extensive collection of drawings and casts in illustration of those departments of surgical knowledge which cannot be displayed by other methods.

In connexion with the Medical Society, which held its meetings in Hunter's rooms, permit me to remark upon the zeal which he always displayed for the record in print or, at any rate, in manuscript, of all observations. He was a prolific author, and he left behind him many volumes of notes. It is said that a cart-load were destroyed by the unfortunate proceedings of Sir Everard Home.

It may seem a bold step to seriously compare Hunter with Aristotle. Unquestionably our countryman was far behind the Greek in the breadth of his attainments and sympathies. He could make no pretension to the encyclopædic range of knowledge and of insight which was the glory of the son of the Stagira physician. The one was at home in the study of the deepest problems of metaphysics; the other, much the reverse. Whilst the one carried habits of impartial investigation into all departments of knowledge, the other, when he left his own domain, sometimes exhibited only the strength of prejudice. We have recently been reminded, by a fortunate discovery, that Aristotle had drawn up for comparison sketches of the constitutions of various cities and nations, and was bent upon forming his opinions on political as on other subjects, by processes of careful induction. Hunter, on the other hand, expressed his vehement desire that those who were not satisfied with their own country would be good enough to leave it, and vowed that he would rather his museum and all its contents were burnt than show them to a Democrat. In spite, however, of these differences, it may be reasonably alleged that, where they met on common ground, the two showed similar habits of thought and intellectual powers not very unequal. Both were systematic and enthusiastic zoologists in times when the study of zoology was the pursuit of very few. Both saw clearly that advance in natural history knowledge could be made only by the collection of facts, and realising that such advance was well worth the effort both set themselves zealously to work. It is probably not possible to mention a third name which can be placed in any sort of competition with either in respect to originality of effort in this direction. It has been asserted, by one well able to form an opinion in this matter, that between Aristotle and the German Kant no metaphysician of original power has appeared. In like manner we might say, in reference to scientific zoology, that there was no one between Aristotle and John Hunter. There were of course many who made meritorious efforts with more or less success, but none whose achievements can in the least compare with Aristotle's account of the parts of animals or with John Hunter's museum. During the long twenty centuries that were passed through between these two men, there did not appear anyone so capable of applauding Aristotle's work as Hunter—not one who would have contemplated Hunter's preparations with more true interest than Aristotle. Nor must we, in admitting Hunter's inferiority in scope of attainment, forget the great difference in their occupations. Aristotle, although the son of a doctor, did not practise physic himself, and he was throughout liberally provided with funds. During the most prosperous part of his career his pupil, Alexander the Great, not only supplied him with money, but collected specimens for him in distant lands. As it had been remarked by Sir Alexander Grant, never before or since was the endowment of research on so liberal a scale. It is only justice to our own countryman to remember that no such fortune had fallen to his lot. He had to earn every pound that he expended in zoological science by the practice of a toilsome profession, to which also he was compelled to devote the better half of his thoughts. He, like many other devotees of science, was under the compulsion to earn a livelihood in other pursuits—a position not wholly unlike that of the Jews of old, of whom it is recorded that they rebuilt the walls of Jerusalem with a trowel in one hand and a sword in the other.

I have ventured to make a halting comparison between Hunter and Aristotle, but I have omitted to mention one characteristic in which they greatly differed. Aristotle earned for himself, in Plato's school, the cognomen of the "Reader," on account of his appetite for books. Hunter acknowledges that he did not read much, and we may well believe it. His whole library sold for only £160, and it is stated that it consisted chiefly of presentation copies. His writings are all from his own observation. He scarcely ever makes a quotation, and rarely mentions a name. As to how far this neglect of professional literature was an advantage, and how far a loss, there may possibly be some difference of opinion. That to a vigorous mind like his the knowledge of the opinions of others may sometimes be a hindrance to original thought will easily be conceded, to say nothing of the loss of time incurred in the acquisition of such knowledge. It has been well remarked that a man who does not know the conventional explanation is more likely to devise a new and perhaps a better one than he who sees the whole subject already explained by others' minds. On the other hand, it is unquestionable that ignorance of what others have done may lead not only to much waste of work, and to the rediscovery of that which was already known, but may obviously result in a comprehension of the subject less adequate than that already in the possession of others. Were I to venture an attempt to estimate the value of Hunter's work on the venereal diseases—one which some of his eulogists claim as a masterpiece,—I should be compelled in all honesty to declare that it was in many respects behind the knowledge of the day. It abounds in sagacious thought, but yet, on not a few matters of detail, those who had written before him

entertained opinions which to me seem more accurate. It betrays too great confidence in the author's own opinions and a want of respect for those of others, which could only come from want of knowledge and of facts. In dealing with the life of a man whose whole career was one of outspoken truthfulness, I too must use candour. We know that praise is pleasant even to the wise, but never was there a man who, less than John Hunter, could have patiently endured the language of indiscriminating panegyric. Exposed to such a trial, I can imagine him breaking out with some similar rejoinder to that which he addressed to Dr. Garthshore, who styled him "My *dear* John Hunter," and got for his pains "My dear Tom fool." In his efforts to make a scientific collection, he was not content with zoology, but took in botany also, and finally included fossils and mineralogy. Everyone has heard stories of his zeal as a collector—how he begged, bought, and bribed, in order to enrich his collection. To induce the keepers of travelling menageries to let him have their dead animals, he used to buy living ones, and loan them out, to be returnable at death. At Earl's Court he had a little private menagerie, and also a farmyard. To a large extent he dissected and mounted his preparations with his own hands. Sir Everard Home records of him that he excelled in the manipulative parts of his work, and greatly enjoyed them. That his industry knew no bounds, and that it was invariably well directed by previously acquired knowledge, we have abundant evidence. Some of the stories which have found their way into print are, however, in all probability, great exaggerations—such, for instance, as the price which he is said to have paid for O'Bryen's body, and the account of his having driven tamed buffaloes through the streets of London. These stories reach their climax in the statement of one writer that he kept a number of dwarfs and giants living on his establishment, in order to make sure of their skeletons.

It was for the apprenticeship with Dr. Cullen that William Hunter derived his zeal and devotion to the scientific aspects of medicine. It was the sight of the museum collected by Boerhaave and his pupil Albinus that fired Dr. Hunter with the desire to make one like it. He returned to London and set to work. His brother John joined him as his assistant, learned his methods, shared his schemes, and kindled at his enthusiasm. Are we right, then, in saying that we owe our Hunterian Museum—one which, let me assert, has no equal in the world—to John Hunter? Yes, certainly, it was his work. There is, however, good reason for widening the basis of our gratitude, since had it not been for Dr. Cullen and Dr. William Hunter, for Boerhaave and Albinus, no such museum would ever have come into existence.

It is, perhaps, not generally known that John Hunter's Museum contained a valuable collection of fossils. There were nine hundred specimens, and to a catalogue descriptive of them Hunter had written, by way of introduction, a most valuable essay on the general facts of geology. With unconscious courage, worthy of either of the Darwins, the fact that enormous periods of time must have elapsed in order to permit of those changes is simply taken for granted. The expression "many thousands of centuries" slips from Hunter's pen as if the duration of life on this planet were as much a mere matter for research as is the life duration of an elephant. How far he was in advance of his age in this matter may be gathered from a letter which our great geographer, Major Rennell, wrote to him. Hunter appears to have asked Rennell's criticism of his essay, and the following is a paragraph from an interesting letter which he received: "This leads me to remark that, in page 3, you have used the term 'many thousand centuries.' Now, although I have no quarrel with any opinions relating to the antiquity of the globe, yet there are a description of persons, very numerous, and very respectable in every point but their pardonable superstitions, who will dislike any mention of a specific period that ascends beyond 6000 years. I would therefore, with submission, qualify the expression by 'many thousand years' instead of 'centuries.'" What Hunter thought of this proposal that he should deliberately sacrifice truthfulness of expression to the prejudices of others may be easily conceived.

The great question now lies before us, In what did Hunter's strength consist? His well-known reply to Dr. Garthshore when saluted with "Well, John Hunter, still at work?" was "Yes! and when I am gone you will not easily find another John Hunter!" He was quite right. For more than half a century no one appeared who was in the least qualified to take up his work.

It has been said many times that the source of Hunter's success lay in his combination in one person of the qualities of thinker and observer. Undoubtedly he did combine them in a way which few others have ever done. He tells us that it was his delight to think, and he alludes fondly to ideas which came to him in his armchair by the fireside, thus proving that under conditions of ease his mind reverted with pleasure to his pursuits. That he was an observant man, one who not only availed himself of all opportunities which came before him, but sought them out and made them for himself, every page of his writing goes to prove. "Don't think, but try," was one of the now celebrated sentences in which he inculcated upon one of his friends the duty of experiment and observation. In it the word "think" must of course be understood in its lower sense, as applied to an untested belief or supposition, a sort of taking for granted. Never in his life did Hunter utter one syllable in disparagement of careful thinking. Never, perhaps, was his special strength in relation to others more accurately estimated than in an exclamation of Sir James Paget's in this theatre nearly forty years ago. The occasion was the production of one of our museum specimens which Jenner had obtained, of which Cavendish had made a chemical examination, and which finally Hunter had described. Well do I remember the bursts of applause which followed the declaration: "Surely never were the elements of an inductive process combined in such perfection—Jenner to observe; Cavendish to analyse; Hunter to compare and to reflect."

There were, however, other qualities of great importance which were elements in Hunter's character, and to which those who wish to train others to emulate his career will do well to give attention. First among them I will place his insatiable thirst for knowledge. Another of Browning's vigorous lines occurs to my memory which is descriptive of Hunter's habitual state in this respect, and as it includes a medical—I might say a pathological—image I have the less hesitation in quoting it here. It is from the "Grammarian's Funeral," and it declares—

> "Back to his studies fresher than at first,
> Fierce as a dragon,
> He, soul-hydroptic, with a sacred thirst,
> Sucked at the flagon."

Whence, then, in Hunter, came this "sacred thirst," and how shall we as parents and as teachers seek to develop it in our children and our pupils? It was, as I have already argued, innate. It was born with him, just as much as were the colour of his hair and the form of his features. Let us, however, as teachers, feel no discouragement in acknowledging the truth that the John Hunters of the future must be bred, and cannot be possibly obtained by mere training. Rather let us take courage in the thought that much that may for the present seem to be seed scattered to the wind, and from which we see but little hope of a crop, is certain in the future to produce a harvest.

If we turn now from what Hunter inherited to the influences brought to bear upon his personal life, to the circumstances which either favoured or hindered the development of that appetite for knowledge and aptitude in its acquisition which he displayed, we must consider first his early education. Was it an advantage to him or a reverse that he was brought up on a farm, and all the tuition he got was at the parish school? To this we may reply that probably his country pursuits not only favoured his physical development, but were useful to him in the formation of his powers of observation and self-reliance. As to the school, very much would depend upon the schoolmaster, and on this matter I believe we have not the smallest fragment of information. That Hunter was, however, fairly well versed in the elements of school education is, I think, unquestionable. He mixed as an equal in London with men of high training, and was a prominent Fellow of the Royal Society, earning for himself the title of "Cerberus," given possibly in recognition of his zeal in exposing false pretences to knowledge. He never had any fear of taking the pen in hand, but wrote at great length, and often with much vigour of expression. That his orthography was not perfect, and that his style was sometimes slipshod and obscure, may be admitted. It must be remembered that in his day much wider liberties in these respects were permitted and taken than now. It must be remembered also that much of what he wrote was composed

under very disadvantageous circumstances—when wearied in the evening, for instance, or at odd hours amid the distractions of practice; and, further, that he usually wrote by dictation, and employed as his amanuenses his artist, Mr. Bell, who was uneducated, and sometimes even his coachman. Further, too, it must be borne in mind that several of his publications did not receive his final corrections, but were published with but careless revision after his death. His obscurity is also to some extent due to the fact that he was dealing with thoughts which went deep, and for which as yet there was no familiar vocabulary. To these facts, as well as to his defective education, we must attribute the circumstance that he but too often permits himself the use of vague and metaphorical expressions.

Hunter, although speaking with strong disparagement of the definitions, saying of them, "That of all things on the face of the earth they are the most cursed," could not help recognising that they are essential to exactitude of thought and clearness of description. He is, therefore, constantly attempting them, and with that candour of mind which is one of his characteristics, as constantly admitting the inadequacy of his efforts. Thus he ingeniously defines the word poison so as to exclude arsenic on the one hand, and the small-pox virus on the other, and he calls the reader's attention to the fact that it does so. His definition of a "morbid animal poison" takes in cancer and the itch. Respecting the latter, and its supposed association with an animalcule which could be seen by the microscope, he suggests "that particles of matter may have been floating in the poison which a lively imagination might suppose to be animalcule;" and adds, "but that these animalcula are necessary to the existence of the disease I totally deny."[1] Definitions, indeed, appear to have exercised a sort of fascination over Hunter's mind. He is much puzzled by the difficulty of so defining the terms "shrub" and "tree," as to distinguish the things. Throughout his most interesting essay on Geology he is plagued by doubts as to the legitimate use of the word "fossil;" and for the first and only time, so far as I have noticed, he betrays some anxiety as to what the critics may say.

If, however, from internal evidence, we may venture to contend that it is certain that Hunter's education in boyhood was far from neglected, what shall we say as to the important years which elapsed between school and the commencement of his London career at the age of twenty-one? We know that, some years later still, when his brother entered him at Cambridge with a hope of repairing the half-wasted opportunities of youth, Hunter himself peremptorily put an end to the plan, and declined "to stuff Latin and Greek." That he was in the right then few will doubt, for he was advancing in years, and his tastes for anatomy and zoology were in full force. It would have been a mistake then to fall back upon the classics. This does not, however, by any means prove that University training at the proper time would not have been very useful to him. We know what Hunter, unaided by this training, did actually accomplish; but we shall err, I think, very seriously if we conclude that he would probably not have accomplished so much had his youth been spent at a University instead of in a cabinet-maker's shop. The subject is too large a one for discussion here, but we may remember that the possession of classical knowledge did not encumber the minds of Bacon, of Harvey, or of Newton. I will ask your permission to record my own conviction that, had Hunter obtained it at the proper time, it would have been greatly to the advantage both of his readers and himself.

For those of us who are placed in positions of responsibility as regards the future training of the medical profession important lessons are to be obtained from Hunter's life. In the first place, let us impress ourselves with faith in the power of that innate desire for knowledge which is the inheritance, if not of all, at any rate of all in the least fitted for our pursuits. We have seen what it effected in Hunter's case. Hunter was not alone in its possession. "Who loves not knowledge?" It is not that its possession is not a delight to all, but that the toilsome methods by which it is acquired, and the difficulty with which it is retained, disgust the idle and sometimes dismay even the zealous. Let us adopt Hunter's methods, and take our students more directly to Nature herself. Let our education become more objective, and concern things rather than books. Let us renounce utterly all remnants of the methods by which the pedagogues of the past so often succeeded in making the very name of education distasteful. Let us trust to the intrinsic attractions of our subjects, and resort as little as possible to compulsion in respect to methods of study. Let our examinations become more objective and less merely verbal, and the examiner will soon be recognised as the friend and not the torturer of the candidate. Above all, let us avoid the error of trying to make all minds fit into one and the same mould, and, whilst doing all we can to encourage breadth in preliminary study, let us remember that there have, from time to time, arisen men who without its aid have brought gain to Science and credit to themselves and their profession. Lastly, in reference to our University schemes and curricula of education, let us remember Hunter's aphorism, that life precedes and causes organisation, not organisation life; and beware lest by the premature imposition of a too artfully contrived organisation we hinder the development of life.

[1] From Parkinson's Reminiscences, p. 157.

ABSTRACT OF

The Milroy Lectures,

ON

DIPHTHERIA, ITS NATURE, HISTORY, AND PREVENTION.

Delivered before the Royal College of Physicians of London,

BY R. THORNE THORNE, M.B., F.R.S., F.R.C.P.

LECTURE I.

DR. THORNE THORNE commenced these lectures by recalling the labours of Bretonneau, and his desire to attach a specific name to a specific phlegmasia which should be anatomically distinct, as also Hirsch's criticism, that the identity or otherwise of two or more diseases in a group could only be determined by having regard to their anatomical, clinical, and, above all, their etiological aspects. He then referred, first, to the failure from the anatomical point of view to differentiate between the several membranous affections of the throat, next to clinical medicine as not supplying the means of distinguishing between the infective or the benign character of throat diseases; and whilst claiming that great advances had in recent years been made as to the etiology of the disease, he admitted that in this respect, too, we had many of the former difficulties still to deal with. It was next shown by reference to statistics that during the last decennium there had been a substantial increase of diphtheria mortality in this country, and that a very significant portion of this increase had taken place in the metropolis. This increase was the more remarkable because whilst it had been in progress the zymotic group of diseases, and notably those causes of death which are amenable to sanitary administration and public health measures, had undergone steady diminution. He next referred in some detail to the statistical researches of Dr. G. B. Longstaff, and to his comparisons of the relative diphtheria mortalities in districts that are divided into dense, medium, or sparse according to the density of their populations, and from these statistics it was shown that whereas antecedent to 1860 the diphtheria rate for the sparse districts was double that for the dense districts, the rates during the period 1871–80 for these respective districts had come to be nearly equal. In short, the incidence of diphtheria was undergoing a change, and the preference which it had formerly shown for rural areas was being transferred to dense communities. Indeed, the increasing excess which he had referred to in the case of London was found to extend to the large towns and cities as a whole; these urban districts having in 1889 a diphtheria mortality of 0·26 per 1000 as opposed to one of only about one-half—namely, 0·14—in 1881. The circumstances detailed were, it was alleged, such as to call for a searching inquiry into the natural history of the disease, especially as regards its causation and prevention.

Turning next to the historical aspect of diphtheria, it was

shown that a disease indistinguishable from it, and this even as regards its paralytic sequelæ, was known before the Christian era, and as to this country the quaint writings of Noah Webster were quoted in which comets, meteors, and other phenomena were conjured up to account for epidemics of throat disease other than scarlatina, which vividly recalled the several features of diphtheria prevalences in our own day. The first recognised prevalence of diphtheria in England, alleged to have been imported from Boulogne, was discussed in connexion with the writings of Simon, Greenhow, and Burdon Sanderson; and then the general distribution of the disease in different parts of England and Wales was considered in some detail by the aid, in the main, of Dr. Longstaff's statistics. The broad geological features of the country were shown to have no direct influence on diphtheria mortality, and as to attacks apart from death no sufficient data are available. Some areas in the same geological formations exhibited the most striking contrasts in this respect; but at the same time Dr. Thorne differed from other authorities who had declared that soil, and this even when altitude and dampness were also in question, had no concern in the development or diffusion of the disease. The two areas in our own country where diphtheria had caused the highest rates of mortality were shown to lie along our exposed north-eastern and eastern coasts, and in the mountainous districts of Wales, and this especially in the damp valleys so abundant in some Welsh counties. Clays, as such, were shown not to have excess of diphtheria death; indeed, the great stretch of the Oolite from the borders of Lincolnshire into Dorset, where clays abound, was the line of England's greatest immunity from diphtheria, a circumstance which was largely attributed to the facilities for drainage afforded by the flow of the great rivers which drain that area. On the other hand, where water was upheld in clays or in gravels, and where to the resulting dampness was superadded a cold, bleak air and vegetable decomposition, there it was held that conditions favourable to diphtheria existed. But at the same time other conditions favourable to the disease were shown often to outweigh all considerations of climate and of soil. These points having been somewhat fully discussed by the aid of charts and diagrams, Dr. Thorne further illustrated them by somewhat detailed references to epidemics which he and his colleagues at the Local Government Board and various local health officers had investigated. And as to the influence of soil-wetness, it was suggested that whilst stagnant water, like stagnant air, was conducive of ill-health and probably of diphtheria, the result of moving water, as in the drift along the beds of great rivers, was probably in no such way injurious.

The influence of season was next considered, and it was shown generally that over a long period of years excess of diphtheria mortality had occurred during the fourth quarter of the year, a circumstance that had in some respects been held to favour the view of a fungoid origin of the disease. Comparison between attacks and deaths from this disease was not possible in the case of the large towns where compulsory notification had been adopted, and the records as to this, which had been compiled owing to the initiative of Dr. John Tatham, were referred to in this connexion, with the result of showing that a striking rise in diphtheria mortality takes place in the month of October, that this hardly abates during November, but that after this it shows a tendency to diminish. But with regard to attacks it was evident that diphtheria increased at an earlier date, the month of September showing a marked number of attacks. And, on the other hand, the January deaths from diphtheria were, in not unimportant amount, due to attacks commencing in December. How far these urban statistics could be held as applicable to rural areas Dr. Thorne did not feel able to say, but the urban experience was stated to be generally the same as that observed in prevalences, that had been carefully investigated in the country, as a whole.

Coming next to the question of sex, some of Dr. Thorne's experiences were referred to, and this especially where he had expressed the opinion that the excess of diphtheria in females over males during the first fifteen years of life was probably due to the fact that female children are likely to be brought into closer contact with the infected sick than is the case with boys. This had been generally accepted by Dr. Downes as applicable to females who had passed the age of childhood, but the latter observer had brought forward a number of statistical and other considerations which he thought tended to show that there was also some physiological proclivity amongst females to take the infection beyond that which attached to males. Dr. Thorne, on the other hand, gave his reasons for believing that in girlhood, as in early womanhood, there was in females opportunity for greater and more sustained exposure to infection than in males.

The question of age incidence as a predisposing cause was also fully discussed. The greatest proportion of total diphtheria deaths was shown to fall on the period three to fifteen years; a still greater incidence was found on the period three to twelve years, and a further excess on the period two to five years. The comparative scarcity of diphtheria mortality was referred as related to such circumstances as avoidance of exposure to infection, the use of breast milk and of milk preparations practically sterilised in process of manufacture, as possibly also to the rudimentary character of the tonsils at a period of life associated with the functional obliteration of the thymus gland. But this question of age incidence was found to be much involved in other considerations. Thus, the age three to twelve years is essentially the school age, and so-called school influence here comes into operation; it is the age when diphtheria is a much more recognisable disease than at some later ages, and in rightly appreciating how far question of age may be one merely influencing the clinical features of the local affection, much was held to depend on the right interpretation which ought to be put on the term "diphtheria" as used both in mortality and in sickness returns.

ABSTRACT OF THE ORATION OF THE HUNTERIAN SOCIETY FOR 1891,

ON PSYCHOLOGICAL MEDICINE IN JOHN HUNTER'S TIME AND THE PROGRESS IT HAS SINCE MADE.

Delivered at the London Institution,

BY FLETCHER BEACH, M.B., F.R.C.P.,

MEDICAL SUPERINTENDENT, DARENTH ASYLUM; HONORARY SECRETARY, MEDICO-PSYCHOLOGICAL ASSOCIATION.

MR. PRESIDENT AND GENTLEMEN,—When you did me the honour to request that I should undertake such an important duty as the delivery of the Hunterian Oration, I had some difficulty at first in deciding upon what subject to address you. The life of Hunter has so frequently been dwelt upon by brilliant orators, such as Paget and others, that it is impossible to bring before you any facts that are not already perfectly well known. On reading an account of his life, one cannot but be struck with his marvellous power of work, his untiring energy, and his complete devotion to science in so many departments. Lawrence truly said that "he was the greatest man in the combined character of physiologist and surgeon that the whole annals of medicine can furnish." Physiology, surgery, and the formation of his museum did not take up the whole of his time, for, on looking through the first volume of his "Essays and Observations," arranged and revised by Sir Richard Owen, I was surprised to find that he was also a psychologist. Hunter was eminently a practical man, and, had he lived long enough, he would no doubt have applied his psychology to the elucidation of many points in surgery and medicine. It therefore occurred to me that the condition of psychological medicine in Hunter's time and its subsequent progress might be a profitable subject whereon to discourse to you.

It appears that during the earlier years of Hunter's life the belief that the insane were possessed of the devil had not entirely passed away, and ignorance and superstition guided the treatment. Ducking the lunatic was practised in some parts of Cornwall, while in Scotland lunacy healing wells and superstition survived as late as 1793. In Ireland the most important of the many stories connected with the treatment of the insane is that concerning the Valley of the Lunatics, in which are two wells, to which lunatics used to resort, drink the waters, and eat the cresses growing on the margin; the firm belief being that the healing water, the cresses, and the mysterious virtue of the glen would

effectually restore the madman to mental health. In asylums at this time manacles were applied to the arms and legs of the patients, who were often confined in dark chambers and lay on straw. Many others were kept in gaols and served as sport to visitors at assizes, fairs, and other places. The patients in private asylums were no better off, and matters at length became so bad that a committee of the House of Commons was appointed to inquire into the state of the private asylums of the kingdom. In 1774 an Act (14 Geo. III., c. 49) was passed, by which five Fellows of the College of Physicians were annually elected Commissioners in Lunacy for granting licences in London, Westminster, and the county of Middlesex. In the provinces, houses were licensed by the justices of the peace. The medical treatment at this time consisted in bleeding, purging, and giving emetics, probably with the idea that insanity was due to excess of bile in the blood. The views of the medical authors of that day are interesting. Drs. Fallowes, Pargeter, Cullen, Arnold, and Mason Cox all wrote on the subject. The latter was the first to lay much stress on *moral* as accessory to *medical* treatment. Management he looks upon as of the highest importance, and he observes that it partly consists in address, but principally is displayed by making proper impressions on the senses. He distinguishes between the sthenic and asthenic forms of insanity, and sees very clearly that, though it is usual to pursue the antiphlogistic plan in the former cases, it is highly improper in the latter, in which a generous diet, bark, and port wine are indicated. Altogether he is much in advance of the treatment of his time, though he believes that bleeding, blistering, and the promotion of vomiting and purging are necessary.

In the year 1792, a year before Hunter's death, an important event occurred which proved to be the beginning of the reform that ultimately took place in the condition of all British asylums. It seems that there was in York at this time an asylum which was a frightful abode for lunatics, and owing to the supposed ill-treatment of a patient confined there, William Tuke, a citizen of the city, proposed the erection of an institution where there should be no concealment, and where patients should be humanely and kindly treated. His proposition was adopted, funds were provided, and in 1796 the York Retreat was opened and the experiment started. The institution was made as much as possible a home with cheerful surroundings, and the patients were encouraged to work in the open air. The compassionate treatment of the insane also commenced in France about this time, for Pinel, in the year 1793, had freed the lunatics at the Bicêtre from their fetters, although he did not know until 1798 that the same humane treatment was pursued in England. It is generally understood that he did not liberate them for medical reasons, but chiefly from the compassion which he felt for their pitiable condition.

Having given you an account of the condition of psychological medicine during the life of Hunter, I now proceed to point out the progress which has since been made. The system of treatment pursued in the Retreat was not followed for some time. Its success excited the jealousy of the superintendent of the York Asylum; discussion followed, and eventually an investigation was set on foot which necessitated legislation. Various Acts of Parliament have from time to time been passed, and the result has been the humane treatment of lunatics as seen at the present time.

In 1815 a select committee was appointed to consider provisions for the better regulations of asylums in England. Evidence was taken from various witnesses relative to the condition of patients in the York and Bethnal-green Asylums and Bethlem Hospital, then near Moorfields. The treatment at Bethlem was atrocious, and the case of William Norris, who was confined there in a barbarous manner, made a great impression upon the public mind. At the York Asylum cells were discovered, four in number, eight feet and a half square, perfectly dark when the door was shut, and the stench almost intolerable; in these cells thirteen women slept. At the Bethnal-green Asylum several of the pauper women were chained to their bedsteads, naked, and only covered with a hempen rug. The effect of this Parliamentary inquiry did not then bring about a new statute, and no less than thirteen years elapsed before a radical alteration of the law took place.

In 1829 further impulse was given to the humane treatment of patients initiated by Mr. Tuke; for, according to Conolly in his "Treatment of the Insane," in that year a patient in Lincoln Asylum had died "in consequence of being strapped to a bedstead during the night. This accident led to the establishment of an important rule—that whenever restraints were used in the night an attendant should continue in the room." In the year 1834 it was found that this principle, which acted so well at night, was also applicable by day, and the result was that the necessity for restraint became less frequent. In 1835 Mr. Gardiner Hill was appointed house surgeon of the Lincoln Asylum, and from this date a new era—that of non-restraint—was inaugurated in the treatment of the insane. Although the experiment was a success, yet the remote position of the institution and the want of authority in its author would have prevented its acceptance for many years if Dr. Conolly, on going to Hanwell in 1839, had not set to work to carry it out in the then largest asylum in the kingdom.

In 1877 a feeling of uneasiness arose in the public mind, in consequence of an impression that patients were too easily admitted into asylums, and when there could only with difficulty get out. A select committee was appointed to inquire into the subject; many false charges were made, but on strict investigation they fell to the ground. Various proposals were suggested, which were embodied in a Bill introduced into Parliament by Mr. Dillwyn in 1881. The Bill never reached the stage of the third reading, but after being introduced in successive Parliaments finally received the Royal assent in 1889. A consolidation of this and previous Acts was passed last year. The chief objects of it are to furnish safeguards against the improper confinement of persons as lunatics, to secure speedy treatment, and to protect medical practitioners and others in the performance of their duties, to amend the law as to single patients, to give increased power for administering the property of lunatics, to check the establishment of new licensed houses, and to enable public asylums to receive private patients. With regard to the classification of mental diseases various systems and principles have been laid down. All of them, as Dr. Blandford says, "are based upon one or other of three principles: either they are framed according to the mental peculiarities of the patient, his exaltation, his depression, his imbecility; or they point to a disorder of one or other portions into which the human mind is by some authors divided; or, the mental symptoms being put entirely aside, the malady is classified according to its pathological cause and its relations to the bodily organism." I will not weary you by recounting them, but will simply remark that the division into mania and melancholia adopted by the old writers is the foundation of the whole system, and that later advances have, as time has gone on, been due to a more scientific study of mental disease.

Great progress has been made in our views of the nature of insanity. The old writers were of opinion that it was due to excess of bile in the blood, and hence the bloodletting, purgative, and emetic treatment. It would take too much time to study the various doctrines that have been held, but there is no doubt that the views of Laycock, Carpenter, Munro, Anstie, Thompson Dickson, and others have all contributed to make more clear to us that insanity is due to depression of the higher centres and excessive action of others. Dr. Hughlings Jackson, adopting the hypothesis of evolution as laid down by Herbert Spencer, thinks that cases of insanity may be considered as examples of dissolution. According to this view, insanity is dissolution beginning at the highest nervous centres, and this is the doctrine usually held by the more advanced scientists of the day. The pathology of insanity has of late years made great strides, and I think we have reason to hope that as time advances we may be able to establish a relation between the physical appearances seen after death and the lesion of intellectual functions observed during life. Excluding the more recent cases of acute insanity, Bevan Lewis tells me that even now he can do this in epilepsy, alcoholism, general paralysis, idiocy (in this I agree with him), chronic melancholia, senile dementia, and a large group of consecutive dementias, including "organic" dementia. That so much can already be accomplished is a result of which we may justly be proud.

Coming now to the treatment pursued at the present day, we find the wards in asylums well furnished and made cheerful looking. In some parts of the country the tendency has been to do away with the huge buildings charac-

teristic of the old asylums, and to build cottages, or, in higher class asylums, villas upon the estate. The conditions of life more nearly resemble those of home, and it is found that patients can be just as conveniently classified and treated. In Scotland the most important change has been to allow greater liberty to the patients. In some asylums the airing courts have been abolished, locked doors have to a great extent been disused, and many quiet harmless cases are boarded out under medical supervision. Industrial occupation, especially in the open air, is of great use. Mechanical restraint, no doubt, in some cases can never be abolished; indeed, this is recognised by the Lunacy Act of 1890, and the Commissioners acknowledge that cases will occur in which it is necessary for the safety of the patient or of others, or is beneficial to the patient, that restraint should be applied. Combined with the moral treatment, which comprises the personal influence of the physician upon the patient, is the medical, which includes the hygienic treatment. Diet and regimen are of the highest importance. Fatty foods, easily digested animal and farinaceous food, and nourishing ale and porter are useful, and though the patient may be too weak for out-door work, yet exercise, or even sitting out in the open air, is now insisted upon. The state of the bowels should be attended to, and tonics, diuretics, the use of the Turkish bath and wet pack, and the bromides, chloral, sulphonal, and paraldehyde, are often beneficial. For the carrying out of this treatment, good attendants, who possess some knowledge of mental disease, and are acquainted with a few simple rules in nursing, are essential. Many such are found in all our asylums at the present day, but the Council of the Medico-Psychological Association have elaborated a scheme by which attendants, on going through a prescribed course of lectures and instruction in the wards and on successfully passing an examination, may obtain a certificate, which will not only be of use to them in passing from one asylum to another, but will be a guarantee to the general public that the possessors of these certificates have attained proficiency in nursing and attendance on insane persons. The Council of the same association is also now engaged in formulating resolutions, directing attention to what is known as the hospital treatment of insanity. Nor should I omit to mention in connexion with the subject of treatment that a Society for the After-care of the Insane has for some years been at work. In summing up the difference between the old and new treatment, I cannot do better than quote the words of Dr. Hack Tuke, who says: "The old system believed in harshness and darkness; the creed of the new is sweetness and light."

Passing now to that department of psychological medicine with which I have for many years been closely connected—viz., the treatment of idiots and imbeciles,—I would remark that the idiot was a being not unknown to Hunter. Although the definition he gives, in the volume of Essays and Observations before referred to, is not quite correct with respect to all classes of idiots and imbeciles, yet, as little was known about their treatment at the time when he wrote, it is sufficiently good as a general statement. The first idiot who attracted the attention of scientific men was the savage of Aveyron. He was a child about eleven or twelve years of age who had lived for some time in the woods of Caune in France, where he subsisted on acorns and roots. He was eventually taken to Paris, where he arrived in the year 1799, under the care of a poor but respectable old man, who soon after had to leave him. Pinel, physician-in-chief to the insane at the Bicêtre, declared him to be idiotic; while Itard, physician to the Deaf-mute Institution, asserted that he was simply wild and untaught, and undertook his education. At the end of five years, although he had immensely improved the boy, Itard was convinced that Pinel was right, and gave up his task in disgust. His labours were, however, not so barren as he anticipated, for the principles of training and treatment which he adopted still remain, but have been further perfected by others, and by none more than by the late M. Seguin, whose treatise on Idiocy and its Treatment by the Physiological Method is still a standard work on the subject. The pathology of idiocy is still in its infancy, but progress is being steadily made. Mierzejewski has written an important paper on the subject, which is also being worked at by Dr. Wilmarth, pathologist at the Philadelphia Training School for Imbecile Children. He has collected 100 brains, and has noted the peculiarities met with in each. One important conclusion has been reached—viz., that the convolutions of brains of idiots and imbeciles often closely resemble those found in the brains of criminals. There is a tendency of the principal fissures to run into each other, forming what Benedikt calls a "confluent fissure type." Those who are interested in the pathology of idiocy may be referred to an article of my own which will appear in the forthcoming Dictionary of Psychological Medicine, edited by Dr. Hack Tuke.

Much improvement is gained by treatment. We have, firstly, to strengthen the body and alleviate its defects, and, secondly, to undertake the special training of the mind. Having placed the patient in as good hygienic conditions as possible, the physical training is commenced. As a result the muscular system becomes strengthened, the hands have less difficulty in performing any simple act, locomotion is improved, the dribbling from the mouth met with in low-class cases is less evident, the eyes wander less restlessly, and listlessness and inertness to a great extent disappear. The moral training has to go on side by side with the physical and mental treatment. Obedience must be taught, and efforts made to impart good temper and affection. The intellectual training in the lowest class of idiots commences by the cultivation of the senses, and as the tactile function is the most important, we begin by educating the sense of touch. The senses of sight, hearing, taste, and smell are awakened by a series of experiments, in every case proceeding from the simple to the complex, instilling ideas by the use of concrete forms and not by abstract notions. Having educated the senses, we proceed to higher branches of learning, and when some progress is made instruction is given in tailoring, shoemaking, &c., to the male patients, while domestic work and sewing prove useful for the females.

On glancing at the future, we are led to inquire whether there is any hope that the progress which has already been made in every branch of psychological medicine will be maintained. I am of opinion that there is good ground for such a hope, for as science advances more and more will be known of the structure and functions of the brain. The labours of Gaskell have already thrown light upon the origin of the brain and nervous system, and those of Betz, Bevan Lewis, and a host of others have given us much knowledge with reference to the structure of this important organ. Who, many years ago, would have thought that the brain would be laid open, and pus and tumours removed from it, as is now done from day to day? The labours of a noble band of workers have enabled this to be accomplished, and science looks forward to still greater conquests. To stimulate inquiry in this important branch of medicine, the Medico-Psychological Association has for some years given a prize, which is open to all assistant medical officers of asylums, for the best dissertation on any clinical or pathological subjects relating to insanity. Three essays were sent in last year, and two of them possessed so much merit that the examiners were obliged to award two prizes. As long as this spirit is at work in our younger brethren, we can with confidence look forward to future discoveries. The knowledge of psychological medicine should, however, be still more extended among all branches of the profession, so that those to whose lot it may fall to treat mental diseases at its commencement, when remedial measures are most valuable, may be able to apply their knowledge with benefit to the patient and advantage to themselves. Inquiries into the causation of insanity should be pushed still further, more attention should be paid to the laws of inheritance, endeavours should be made to impress upon those who are the subjects of this *damnosa hæreditas* the utmost importance of paying attention to the laws of health, and teachers should be warned against unduly pressing and overworking the brains of growing children. Let us remember the old maxim, "*Ars longa, vita brevis*," and, whatever our medical path in life may be, let us see that we hand down the flaming torch of knowledge pure and undimmed to our successors.

"Let us then be up and doing
With a heart for any fate;
Still achieving, still pursuing,
Learn to labour and to wait."

THE EASTERN HOSPITAL.—Dr. Bridges and Mr. R. Hedley have been appointed by the Local Government Board to hold an official inquiry on oath into the complaints against the management of the Eastern (Homerton) Hospital of the Metropolitan Asylums Board.

PULMONARY PHTHISIS;

SOME REMARKS AS TO ITS PATHOLOGY AND ITS CURABILITY IN EARLY STAGES, PARTICULARLY BY THE USE OF HOT AIR INHALATIONS.

BY T. CRANSTOUN CHARLES, M.D.

AT the meeting of the British Medical Association in Leeds two years ago I read a paper on the hot air treatment of pulmonary phthisis, and as it so happened that all the cases I had had under treatment were in an early stage of the disease, I had only a series of very successful results to communicate. Since then, however, my experience of the method has been greatly extended, and I have come to the conclusion that only in very early cases can any benefit be expected from it. A great amount of interest is now being directed towards the cure of this disease, particularly owing to Dr. Koch's valuable endeavours in this direction; and should his efforts be crowned with success, not only in early but also in somewhat advanced cases, then a great and good work will have been accomplished, and Dr. Koch will truly deserve to be ranked as one of the greatest benefactors of the human race.

The apparently essential characteristic in the pathology of phthisis consists, it is believed, in a caseous necrosis, the typical phenomena of the disease being produced as the result of the influence of a special morbid poison. Its starting point seems to be the lodgment of a few tubercle bacilli in the finer bronchial tubes or in the alveoli of the lungs, leading to the development of the miliary tubercles, and a consequent inflammation of the bronchioles extending to the proper parenchyma of the lungs. The caseous necrosis, therefore, depends on the growth and development of these special tubercle bacilli; indeed, every form of tuberculosis of the lung may be said to have received its first impulse from the tubercle bacilli. In their growth these bacilli evolve certain chemical products which are highly injurious to the tissues with which they come in contact—products also which are not of necessity confined in their action to the surfaces and canals where they are generated, but may extend to other parts of the organism, and excite there inflammatory changes of different kinds. The lesion, however, is not usually a penetrating one, at least in the early stages, but rather tends to spread superficially along the air passages and lymphatics—a progressive infection accordingly depending upon the multiplication of the bacilli. It is further known that the character of the disease depends in part on the quantity and quality or degree of virulence of these bacilli, and partly on the susceptibility of the lungs of some individuals to their lodgment and development, while a progressive infection is due to their multiplication. Where, for example, the normal tissue resistance is too great, these organisms can obtain no resting place, or, if they do, their development is of short duration. In some individuals, however, the tissue resistance is less powerful, and accordingly a morbid tubercular process is set up, leading to the condition known as fibroid phthisis. In this variety the tissue resistance is greater than in the next, and accordingly its course is not so rapid; the patients also are generally males, and their age more advanced. Where, again, there is still less of this tissue resistance, the ordinary caseous phthisis is established, an exceptional form occasionally occurring—the so-called "acute general tuberculosis,"—where the susceptibility is very great, or, in other words, the tissue resistance very feeble, and in which the bacilli develop freely, make their way in great numbers into the blood, and by its means effect a lodgment in many organs simultaneously, leading to the outbreak of innumerable tubercles. Upon the degree of virulence of these bacilli, owing chiefly as it does to their quantity and quality, depends the type of tubercle produced; for Baumgarten has shown that while inoculation of animals with pure cultivations of tubercle bacilli induces the development of the lymphatic tubercles, inoculation with bacilli whose virulence has been weakened by the action of heat will only lead to the development of the epithelioid tubercles—that is, an abundant impregnation with the active bacilli tends to the building up and rapid degeneration of lymphatic tubercles; whilst an impregnation with a small amount of bacilli whose vitality has been impaired will lead to the formation of epitheliod tubercles, with the accompanying formation of much connective tissue, and its subsequent shrinking as the result of the irritation.

As Dr. Coats puts it, in his admirable lectures on the Pathology of Phthisis, to which I am much indebted, pulmonary consumption is a disease of surfaces, channels, and tubes. Beginning in the finer bronchial tubes, the disease may extend by the air passages or by the lymphatics, probably by both, but chiefly, probably by the air-passages in the caseous form, and by the lymphatics in the fibroid. A certain susceptibility, we have said, must be present to admit of one or other of these diseased processes, and this susceptibility, there is every reason to believe, may be hereditary or it may be developed. The pre-existence of certain affections of the lungs, for example, we know undoubtedly plays an important part in bringing about a greater liability to the invasion of these bacilli, particularly when the vitality of the tissues is already lowered by the respiration of vitiated air.

Different methods have been employed to destroy these tubercle bacilli, and it is a very fortunate thing that they have comparatively little vitality and offer little resistance to the action of reagents. They are easily destroyed, for instance, by such bodies as carbolic acid, corrosive sublimate, salicylic acid, acetic acid, &c., and accordingly various attempts have been made to kill them in the lungs. All these attempts, nevertheless, it must be confessed, have proved more or less futile, so far, at least, as the cure of the patient was concerned. With the same object in view Dr. Louis Weigert of Berlin some years ago introduced the inhalation of hot air. Koch and other observers had shown that tubercle bacilli are specially sensitive to the influence of temperature. They develop best about 37·5° C., while their growth is weakened at 38·5°, and ceases at 42°, and at any higher temperature than this their vitality is quite destroyed. Dr. L. Weigert finding that it was possible to sterilise these bacilli by means of the discontinuous periodic action of heated air, and that a man could breathe very hot air for prolonged periods without suffering any injury, then convinced himself of the possibility of effecting a sterilisation of the bacilli in the lung substance itself. This is done by the daily inhalation of heated dry air at a temperature of 200° to 250° C. for about two hours at a time, and for a lengthened period extending over several months.

Without going into the question of the temperature of this heated air when it reaches the lungs, I shall confine myself to saying that in early cases of pulmonary phthisis its use certainly caused the number of bacilli in the sputum to diminish greatly, and even in a few cases to disappear entirely. But undoubtedly another great advantage noted was the forced exercise of the lungs induced by it. This lung-gymnastics proves of essential service not only to the lungs, but to the well-being of the body generally, for collapse of the pulmonary lobules, with its attendant evil consequences, is thereby prevented, while, at the same time, the inspiratory muscles undergo a marked development. I therefore attempted to sterilise or destroy the tubercle bacilli by the inhalation of hot air, and at the same time made an effort to check any further invasion of the tissues by the bacilli by improving the general tone of the tissues. It is to be carefully borne in mind that a susceptibility exists, and that every means consequently must be adopted to lessen or remove this as far as possible, as, for example, a good and varied diet, moderate exercise in the open air, and change of air where possible—the more elevated and drier the situation the better,—plenty of sunlight also, massage, cold douches, and the like. In connexion with the function of digestion in my phthisical patients, I should mention that whenever I found it impaired at all, as the result of a catarrhal condition of the stomach—which is so frequently the case,—I made a point of beginning the treatment by washing out that viscus, employing in succession for that purpose a warm saline, a warm alkaline, and, lastly, a warm acid solution. To this I attach some importance, as it is essential to success that the stomach be in a condition to perform its duty in digestion. The decided and often immediate improvement I obtained in this way was sometimes remarkable. Some patients require this washing process repeated several times, but others do not. And not only is it of importance that the stomach should be able to digest the food, but its activity also serves as a safeguard to the intestines; for it is the passage of the tubercle bacilli through the stomach that precedes the intestinal ulcerations; but as long as the gastric juice is possessed of

its normal acidity, the bacilli in passing through have their vitality destroyed or greatly inhibited. Where, however, there is much gastric catarrh, the mucous membrane being thickly covered with mucus, and the hydrochloric acid greatly diminished in amount, as I have frequently observed, then the bacilli in the swallowed sputum may pass safely through and reach the intestine, there to effect lodgment in the gut, and bring about tubercular ulceration—a condition of things of much too frequent occurrence, seeing that it is present in from one-half to two-thirds of the fatal cases of pulmonary tubercle.

As I have already stated, the only success I have obtained by the use of the hot-air treatment has been in early cases of the disease. It is therefore of importance to begin it as early as possible. By doing so we may probably prevent any marked invasion of the blood by the bacilli, with the acute tuberculosis consequent thereupon, as also the possibility of the stomach and intestines being affected with the disease, as referred to above. I shall enter into no description of the apparatus employed for heating the air, but shall limit myself to stating that it has been used by healthy men for prolonged periods without producing any bad results, while in early cases of pulmonary phthisis I have noted the following after its prolonged use: An increase in the vital capacity of the lungs, with a considerably increased expansion of the thorax, varying from an inch to three inches; a gradual disappearance of the atrophic condition of the external thoracic inspiratory muscles, the diaphragm also becoming more vigorous in its action, the inspirations accordingly being rendered deeper and more powerful; a diminution in the bronchial catarrh, the expectoration, though increased at first, being afterwards diminished, and the cough finally disappearing; and a general improvement in the appetite and health, and an increase in body weight. The bacilli, although considerably increased at first, undergo a marked diminution with the continuance of the inhalations—indeed, they may finally disappear entirely. This examination for bacilli in the sputum should never be overlooked, as their presence is one of the most, if not the most, important sign of the disease, and not one, but a series of examinations of the same sputum should be made, of which a considerable quantity should be collected and mixed thoroughly. I generally direct the patient to make a practice of spitting into a small wide-mouthed bottle containing a few drops of chloroform or a piece of menthol. Indeed, I think the sputum of phthisical people generally should not be distributed broadcast, as is the usual habit, but ought to be collected in some such way as I have suggested, and afterwards destroyed by fire or antiseptics.

The method I pursue in the examination is generally the following. A little of the mixed sputum is spread out between two thin cover glasses, which are then separated carefully and passed several times through the flame of a spirit lamp, so as to coagulate the albumen and fix the sputum to the glass. The staining fluid I prefer is Neelsen's: magenta, 1; carbolic acid (5 per cent.), 100; absolute alcohol, 10. A little of this fluid is heated in a small porcelain dish till steam rises, when the cover glasses with their adherent sputum are immersed in it, the dish covered and laid aside for three minutes. The cover glasses are now lifted out and placed at once in a 25 per cent. solution of sulphuric acid, in which they are to be moved about freely for a short time so as to decolourise all but the tubercle bacilli, when they are to be placed finally for a couple of minutes in a dark-blue solution of methylene blue so as to obtain a contrast stain, and lastly washed in distilled water, dried, and mounted in thick balsam. It quickens the process somewhat to dissolve the methylene blue in the sulphuric acid. In cases of fibroid phthisis there is often some difficulty in discovering the bacilli. Here, as well as in cases where bacilli are suspected to be present but cannot readily be found, several examinations require to be made; but I find that by spreading out a considerable quantity of the sputum between two clean sheets of plate glass little translucent masses may often be noticed, which when carefully removed and examined will usually show the presence of bacilli.

The experience I have had with this method of treatment disposes me to recommend its use only in the early stages of pulmonary phthisis—cases where the pulmonary tuberculisation is not far advanced, and the lung substance only slightly involved, and not at all broken down; where, in short, the bacilli are most recently deposited, and accordingly most superficial. Indeed, where there is a strong suspicion of tubercle setting in, although no positive physical signs of tubercular deposit may be capable of detection; where, for example, there is hæmoptysis which we cannot refer to any other source—as from the nose, mouth, gums, throat, larynx, trachea, stomach, or from structural alterations in the terminal pulmonary bloodvessels of elderly people with an arthritic diathesis (Clark); or during severe attacks of acute bronchial catarrh with violent coughing, or after severe bodily exertion or the inhalation of highly irritant gases,—then, all these probable causes being cautiously eliminated, it would be advisable to adopt its use.

That a bronchial catarrh, particularly if confined to the apex of the lung, or spreading there and inducing a catarrhal pneumonia—a pneumonia localised in the upper lobe, or a catarrhal pneumonia in the lower lobe—may often be followed by tubercle, we have unfortunately too many examples. Now it so happens that this hot-air method provides us with an admirable means of treating many obstinate forms of bronchitis; and I have frequently used it in such cases with the most marked benefit. No doubt many of the milder cases of pulmonary phthisis may eventually recover of themselves, particularly if the conditions are at all favourable; but the course is necessarily very slow, and liable to many accidents.

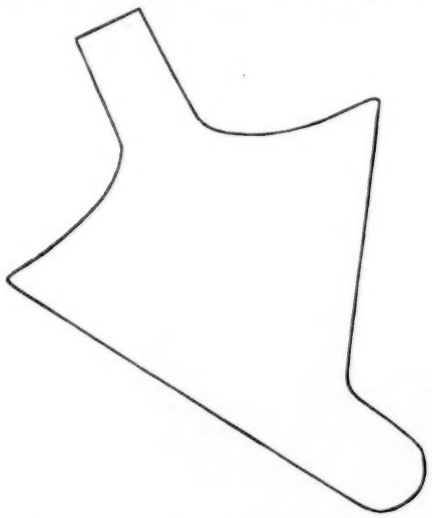
(To be concluded.)

RHINOPLASTY.

By SURGEON-MAJOR D. F. KEEGAN, M.D. DUB.,
RESIDENCY SURGEON, INDORE, CENTRAL INDIA.

THE conditions under which the surgeon in India performs rhinoplasty differ somewhat from those under which he does the same operation in Europe. In Europe, in the majority of cases, rhinoplasty is performed in order to repair the ravages and disfigurement caused by lupus or tertiary syphilis, and it is but seldom that plastic surgery is called upon to make good the damage done to a nose by accident or mutilation. In India, on the other hand, in the vast majority of cases, rhinoplasty is performed to hide the ghastly disfigurement caused by mutilation, and our patients are almost invariably young, healthy, and robust. During my service in India I think I must have performed between forty and fifty rhinoplastic operations, and in every single case they were undertaken to repair the damage inflicted by mutilation. It will be conceded by most surgeons who have had considerable experience in rhinoplasty that the Indian method of operation possesses many advantages over both the Taliacotian and the French plans of procedure. The French method I need hardly say consists in fashioning a new nose by means of flaps taken from the cheeks. The Indian operation, as described and figured in English surgical text-books, is, however, susceptible of much improvement, and it is with the object of bringing this improvement to the notice of the profession in India and in this country through the medium of THE LANCET that I write this short paper. The operation which I have performed of late years as the outcome of considerable experience of rhinoplasty is, however, only applicable in its fullest extent to those cases of loss of nose in which the skin and tissues which clothe the nasal bones have been left undamaged. All surgeons who have had much experience in making new noses are, I think, agreed, that the principal difficulties and drawbacks of the operation centre in the formation of the columna, and in obviating the continued tendency to contraction in the anterior nares of the newly fashioned nose, a tendency which continues for several months after operation. The flap which I raise from the forehead differs considerably in outline from that which we see generally figured in English surgical text-books, and although German surgeons have to some extent adopted the same method of obviating the contraction of the anterior nares as we have pursued for some years at Indore, still I feel I need not offer any apology for bringing the subject to the notice of my English readers. This method of forming new noses has been worked out independently by my assistant, Mr. Gunput Singh, and myself, but we disclaim for it any title to originality, for he would be bold indeed who would assert that he had devised a perfectly new operation in the changeful field of plastic

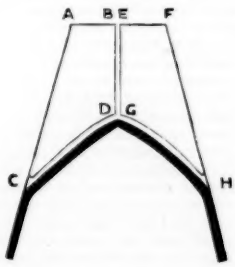
surgery. Annexed is an outline of the flap which I take from the forehead. It will be remarked that it differs considerably from that which we see generally figured in English surgical text-books. Nevertheless, it is the shape of flap which the surgeon should raise from the forehead when he has to deal with a case of lost nose, in which the entire cartilage, both alæ and the columna, have disappeared. The size or superficial area of the flap, as distinguished from its shape or outline, will, of course, depend a good deal upon the make or cast of face of the patient with whom we have to deal. If the patient's nose was originally a long one, then the forehead flap must be cut proportionally longer. That the annexed outline indicates the shape of flap which should be aimed at I have proved again and again to demonstration by mapping the outline of several noses cut off from subjects in the dissecting room. Should portions of the patient's alæ nasi and columna be left intact, then, of course the shape of the forehead flap must be modified to suit the requirements of the case. The root or pedicle of the forehead flap should occupy the internal angle of the eye, and care should be taken that the angular artery which supplies the root be not wounded. The forehead flap should be mapped out obliquely, and not perpendicularly, to a line connecting the eyebrows In Eastern women, who frequently have low foreheads, I have often



been obliged to encroach on the scalp to provide for the columna; and, although under such circumstances hair grows on the newly formed columna, still I think that this is preferable to deforming the mouth by taking the columna from the upper lip, as the hair can be kept clipped with scissors.

Now I must describe the steps of the operation, and I shall endeavour to make as clear as I possibly can, without the aid of a coloured drawing, the device for obviating the contractile tendency of the anterior nares of the newly formed nose. I generally allow a fortnight or three weeks to elapse after the mutilation before attempting to restore a new nose. The patient having been fully anæsthetised, the cavities on both sides of the septum nasi are plugged with pledgets of cotton-wool, to which strings or sutures are attached. We will suppose that we have to deal with a case in which both alæ nasi, the entire cartilage, and the columna have been cut away. The operation is begun by carrying two converging incisions from two points slightly external to the roots of the alæ nasi to two points about three-quarters of an inch apart on the bridge of the nose, where a pair of spectacles would rest. These two points on the bridge of the nose are now joined by a horizontal incision. This horizontal incision is bisected, and a perpendicular incision is drawn downwards from the point of bisection nearly as far as where the nasal bones join on to the cartilage of the nose. In other words, this perpendicular incision follows the course of the junction of the nasal bones, but is not carried down as far as their inferior borders. The skin and tissues are now dissected cautiously from off the nasal bones from above downwards in two flaps, ABCD and EFGH, as in the appended diagram.

The two inferior borders of the flaps—viz, C D and G H—are not interfered with, and constitute the attachment of the flaps to the structures and tissues which clothe the inferior borders of the nasal bones, where they join on to the cartilage of the nose. If these two flaps are reflected downwards, so that their raw surfaces look forwards and their cuticular surfaces look backwards, it will be found that they overlap in the centre. The surgeon has therefore a redundancy of flap to deal with, a redundancy which he can utilise a little later on when he has raised the flap from the forehead. He now proceeds to do so in the usual way. A piece of stout brown paper rendered adhesive and corresponding in outline with the flap, considered suitable to the case in hand, is stuck firmly on to the forehead in a slanting direction. And then a very sharp knife is run round the border of the paper. The paper is now removed, and the flap is quickly raised from the forehead. This flap should embrace all the tissues down to the periosteum, and should be subjected to as little handling as possible. The sides of the gap now left in the forehead are approximated as quickly as possible by means of horsehair sutures, and it is surprising how small a raw surface is left behind on the forehead if the approximation of the sides of the gap be judiciously and expeditiously carried out. Attention is now directed to preparing a nidus or bed for the reception of the columna, and this does not require any description. The two flaps, ABCD and EFGH, which have been



already raised from off the nasal bones, are now reflected downwards, and, as they overlap in the centre, two triangular-shaped pieces are cut away, and placed in the middle of the gap left in the forehead, in order to expedite the process of cicatrisation in the frontal scar. The forehead flap is now brought down over the nasal bones, and rests inferiorly on the two reflected flaps, A B C D and E F G H, taken from off the nasal bones. The raw surface of the frontal flap, inferiorly, lies on the raw surfaces of the two reflected nasal flaps, and the nostrils of the newly formed nose are therefore lined inside with the skin or cuticular sides of the reflected nasal flaps. The free inferior margins of the forehead flap and the nasal flaps are now brought together by horsehair sutures. The columnar portion of the forehead flap is now fixed in the bed prepared for it by sutures, and the two original incisions drawn from the root of the alæ nasi on either side to the bridge of the nose are now deepened and bevelled off for the reception of the sides or lateral margins of the forehead flap. The sides or lateral margins of the forehead flap are most accurately attached by means of horsehair sutures to the bed prepared for them. Two pieces of drainage-tubing are inserted in the newly formed nostrils. Strips of lint on which some boracic ointment has been smeared are placed over the junction of the lateral margins of the new nose to the cheeks, and also on the gap left behind on the forehead, and cotton-wool is applied over all. If the root or pedicle of the new nose is sufficiently broad, and is not dragged upon and the angular artery has not been wounded, then all will go well, and there need be no fear of sloughing. Indeed, it will be generally found that, if due antiseptic precautions have been taken during the operation, the new nose will have adhered in a very large extent by first intention. I allow a fortnight to elapse before dividing the root or pedicle of the new nose, and in

doing so I cut a wedge-shaped slice out of the root so that the new nose may not be parrot shaped. As the inside of the nostrils are clothed with skin, the drainage-tubes may be discarded after ten days, for if the operation has been properly performed there can be no contraction of the nostrils. I know how extremely difficult it is to make the steps of a plastic surgical operation perfectly clear and intelligible without the aid of coloured plates; but if the reader will bear in mind that the object of raising the flaps from off the nasal bones is to clothe the newly formed nostrils with skin, and so counteract their tendency to contraction, which is one of the great drawbacks to success in rhinoplasty, he will, I think, be able to follow the steps of the operation. It should also be mentioned that the utilisation of the nasal flaps gives strength and support to the new nose, and counteracts its tendency to flattening. Appended are eight engravings, taken from photographs of four patients out of a large number on whom I operated during the past three years at Indore. They speak for themselves, and show plainly how much plastic surgical art can relieve the ghastly disfigurement caused by the ruthless knife of the mutilator.

BEFORE OPERATION.

AFTER OPERATION.

BEFORE OPERATION.

AFTER OPERATION.

BEFORE OPERATION.

AFTER OPERATION.

Here, as the alæ nasi had not been cut away, I modified the shape of the forehead flap to suit the requirements of the case.

BEFORE OPERATION. AFTER OPERATION.

This man's nose was cut off by order of Tantia Bhil, a notorious Dacoit or highwayman and robber, three months before Tantia was captured. My patient was a respectable Mahratta Brahmin, and was one of the principal witnesses in identifying Tantia when the latter was brought into Indore. Tantia's surprise, when confronted with the Brahmin whose nose had been restored before he entered the witness-box, was very amusing.

NARRATIVE OF

A CASE IN WHICH AN ENLARGED SPLEEN ASSOCIATED WITH A LARGE INCREASE OF THE WHITE CORPUSCLES DISAPPEARED UNDER TREATMENT.

BY ALFRED G. BARRS, M.D., M.R.C.P.,

SENIOR ASSISTANT PHYSICIAN TO THE GENERAL INFIRMARY AT LEEDS; LECTURER ON MATERIA MEDICA IN THE YORKSHIRE COLLEGE OF VICTORIA UNIVERSITY.

MR. ——, aged twenty-three years, came to me on Sept. 23rd, 1889. He said at once that he was suffering from albuminuria, which had been discovered by a medical man whom he had seen in Paris in the June previous. From Mr. ——'s age and appearance I at once suspected that he was suffering from a functional form of albuminuria. He gave the following history of his case:—In September, 1888, two teeth were extracted by his dentist and there was bleeding from the gum for seven days after each separate extraction. (Previous tooth extraction had not been followed by bleeding.) He was in good health up to the date of the extraction. The bleeding pulled him down a good deal, and he has felt more or less feeble ever since. In Jan. 1889, eight months before I saw him, he had been in Spain on business, and had had there diarrhœa and a very bad cold. (No malarial cause for this was known.) On his return home he looked ill, and had lost some weight. In June, 1889, still feeling ill but able to travel in connexion with his business, he was seen by a medical man in Paris, who found albumen in the urine. On one occasion the albumen was found to be absent after exercise at 1 P.M. At this time (in Paris) there was a copious sediment of urates. There was no known increase in urine, no nocturnal micturition. His general condition had improved since the beginning of 1889. He had never passed any black urine, but he had been subject to chilblains when a boy. I made a rapid examination of the chest, and found no sign of cardiac or pulmonary change, so that the case seemed only to require the evidence to be found in the urine to confirm my suspicion of functional albuminuria. Accordingly I asked Mr. —— to send me specimens of his urine, taken at different times, for the following four days, which he did. I need not detail the results of these examinations. All the specimens examined were loaded with urates, a fact, I need scarcely say, practically negativing organic renal disease. All were highly albuminous, and—a point particularly worthy of note—the morning urine (that is, the urine passed on rising) was always more albuminous than the urines passed before and after dinner. In all forms of functional albuminuria the morning urines are generally free from albumen, or at any rate are always markedly less albuminous than those passed after exercise and after food. In this case we had a urine loaded with lithates, and containing more albumen in the morning than at any other time in the day. This at once made me suspect that I had overlooked some important point in the case through accepting too readily the statement of Mr. ——'s medical attendant in Paris. At the end of four days I saw Mr. —— again. On examining the abdomen I was surprised to find an enormous enlargement of the spleen, of which I took the following two measurements:—The lowest point of the free edge was 6¼ in. below the costal margin in the nipple line, and its extreme right limit was easily defined at 3½ in. to the right of the middle line. The liver could also be felt about 1½ in. below the right costal margin. There was no lymphatic enlargement. On examination of the blood, the white corpuscles constituted at least 25 per cent. of the former elements seen in a field of the microscope. On being questioned, Mr. —— said that he had known that his abdomen had been increasing in girth for perhaps twelve months, but he had thought it was nothing more than an ordinary stoutness, though he also knew that he had not increased in weight. After a careful consideration of the facts so far as I could ascertain then, I came to the conclusion that, in spite of the almost absolute certainty that the patient had at some time been exposed to malarial influences, for he travelled during the greater part of the year, and mostly in Southern Europe, the case was a well-marked example of simple splenic leucocythæmia. This opinion I expressed to his friends, and told them that the average duration of life in such cases was about two years for persons of Mr. ——'s age. A report of the facts of the case, drawn up by myself, was submitted to Professor Virchow, who confirmed my opinion as to the nature of the disease, but gave the patient longer to live than I had done, and suggested some unimportant details of treatment. The urine continued albuminous until Jan. 6th, 1890, when all the specimens examined were found to be normal. Through December, January, and February, the spleen gradually retired towards the left hypochondrium, and in March it could no longer be felt. At the same time the increase in the white corpuscles became less and less marked until March 21st, 1890, when examination showed them to be not more numerous than normal. From the time I first saw him till April, 1890, Mr. —— had systematically taken arsenic and iron, the former in increasing doses, until he was able to take nine drops of the liquor arsenici hydrochloricus three times daily without inconvenience.

I think anyone who had seen the case would have concurred in my diagnosis of splenic leucocythæmia. Certainly, all the cardinal signs of that disorder were abundantly manifest. A malarial influence has been always mentioned as one of the exciting causes of splenic leucocythæmia; but, so far as I know, whether of malarial taint or not, such cases as that I have narrated have always ended in death. There could be no doubt that Mr. —— had been in malarial districts over and over again, but he had never had any recognised malarial manifestations. The case, whatever its intimate nature, shows that a marked leucocytosis and

an enormously enlarged spleen may disappear under treatment by arsenic and iron—the only method of treatment, so far as I know, which has ever achieved any reputation in the betterment of any of the members of the group of blood disorders to which splenic leucocythæmia belongs. The occurrence of albuminuria in leucocythæmia has been recorded, but this case is the first example of it that I have seen. At present, I cannot of course speak to the permanency of the recovery, for, as is well known, at least one member of the family of blood diseases—namely, idiopathic anæmia, has periods of improvement, if not of absolute recovery, followed at length by fatal relapse.

Leeds.

A CASE OF HERNIA CEREBRI ACCOMPANIED BY MOTOR PARALYSIS; PARTIAL RECOVERY.

BY A. G. CREAGH, M.R.C.S. ENG., L.S.A. LOND.

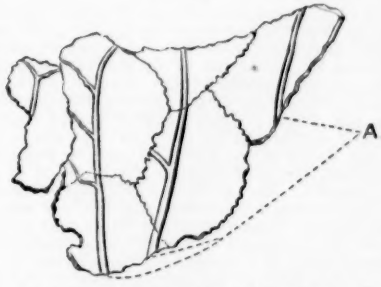
ON June 20th a Hottentot lad, aged seventeen years, was brought to me with a compound comminuted and depressed fracture of the left parietal. Under chloroform I removed from the substance of the brain twelve fragments of bone, which pieced together would correspond to an aperture in the skull cap measuring on the inner surface 2¼ in. by 1¼ in. The dura mater was extensively rent and the cortical matter protruding. Hæmorrhage from a branch of the meningeal artery was controlled by sponge pressure, the scalp brought over without sutures, and the wound dressed with lint and carbolised water applications. The following extracts from my note-book will show the progress of the case:—June 21st, noon: Sponge removed, head dressed, drainage-tube inserted in anterior angle of wound; pulse 90; temperature 99·8° F.—22nd: Considerable discharge from wound, which was dressed with carbolic lotion (1 in 40) and iodoform wool; diet, milk, and beef-tea.—24th: There was noticed for the first time total abolition of voluntary movements in the right arm and hand and leg of the same side. The injury to brain substance with reference to external landmarks was situated in a perpendicular line with the right external auditory meatus, and at a distance of 5½ in. from it; distant in a straight line from the nearest point of middle line of head, 2¾ in. The cerebral lesion would therefore correspond to the posterior part of the superior frontal convolution, together with the upper portion of the ascending frontal, upper extremity of ascending parietal and part of superior parietal convolutions—i.e., the circle of injury would, roughly speaking, correspond to Ferrier's centres for movements of right arm, hand, and leg. The general condition of the patient is dull and apathetic, and there is considerable difficulty in expressing ideas. Pulse 84; temperature 100°.—26th, 12.30 A.M.: Called to patient, whom I found suffering from epileptiform convulsion. Noon: during the night the patient passed fæces in bed; answers questions with difficulty, but understands easily when spoken to.—29th: Some sloughy brain substance was removed from the wound. General condition brighter.—July 1st: There is considerable bulging of reddish brain substance through the wound aperture, cerebral hernia to the size of a large walnut being present. For the past forty-eight hours the patient has passed urine in bed, and the bowels have acted without his knowledge; he is unwilling to be disturbed. Pulse 86; temperature 99·5°. The hernia was treated by bandage-pressure over the dressings.—3rd: The tongue when protruded is drawn to the right side of the mouth. Pulse 80; temperature 98·6°.—16th: The hernia equals a fowl's egg in size and bleeds freely when touched. Paralysis of right arm and leg still complete. Pulse 100; temperature normal.—22nd: The cerebral tumour has increased to the size of a tangerine orange, and there is œdema of both eyelids; urine free from albumen. The accompanying engraving from a photograph shows well the size and position of the hernia at this date. The small diagram (Fig. 2) of the portions of the inner table of skull removed illustrates the size and shape of the aperture in the calvaria.—Aug. 26th: Under continuous pressure, applied daily, the tumour has become almost level with the scalp.—Sept. 1st: There has been a considerable gain of power in arm and leg, hernia level with scalp and skinning over.—Oct. 30th: With the aid of a crutch the patient walks fairly well, and can approach the right hand to within six inches of the face.

Remarks.—I think the progress of this case is worthy of consideration, as illustrating several points and giving food for reflection as to the causes of some of the symptoms and their *modus operandi*. The injury was inflicted with an iron rake during a drunken quarrel, a corner of which caused a tripartite scalp wound of a not very important appearance. In the words of Hippocrates, no head injury is so trivial as to be despised or so serious as to be despaired of. The patient was suffering from the combined effects of concussion and alcohol

FIG. 1.

when first seen, and had the precaution of passing the finger into the wound been omitted, severe encephalitis might have supervened from irritation of the broken fragments of bone. In two other cases of fracture of skull vault which came under my notice at short intervals, the patients, in whom there was reason to suspect only a slight laceration of cerebral cortex, suffered from violent maniacal delirium, requiring restraint. These latter were white men. Possibly the more lowly organised brain of the Hottentot may be more tolerant of injury; but may not its absence in this case be due to the freedom of drainage, and impossibility of compression and irritation, by inflammatory effusion on the substance of the brain? If so, is not the question of active surgical interference by trephine suggested as a more frequent

FIG. 2.



Six fragments of inner table of skull removed.
A, Grooves of meningeal arterial branches.

dernier ressort in those cases of acute encephalitis and meningitis which are tending to a fatal termination? Nancrede says that 70 per cent. of the cases of hernia cerebri terminate fatally. May not compression and antiseptic cleanliness hold out hopes of more satisfactory results? With reference to the cause of the motor paralysis, if arising only from the destruction of the cortical centres, how can we explain the return of muscular power? On the hypothesis of Exner's theory of absolute and relative centres, it might be suggested that the functions of the destroyed absolute centres have been taken up by the corresponding relative centres. On the other hand, if we suppose that a certain amount of inflammatory effusion took place in the cerebral substance, interfering with its functions, it is possible that the resolution might be followed by the return of motor power, only those centres entirely destroyed by laceration remaining useless. In any respect, as the fact stands it has an important bearing on prognosis in similar cases.

Ganglionic nerve-tissue is generally supposed to have almost no capacity for restoration, consequently I fail to see that the return of motor volition can be explained except by one of the foregoing surmises. I regret that, my battery being out of repair, I was unable to test the electrical reactions of the muscles in the paralysed limbs.

Port Nolloth, S. Africa.

DIFFICULTIES CONNECTED WITH THE USE OF NITROUS OXIDE BOTTLES IN THE HORIZONTAL POSITION.

BY C. E. SHEPPARD, M.D., B.S. LOND., F.R.C.S.,
ANÆSTHETIST TO GUY'S HOSPITAL (DENTAL SCHOOL), AND SECOND CHLOROFORMIST TO THE MIDDLESEX HOSPITAL.

THE horizontal steel bottles now so largely used for the storing of liquid nitrous oxide have, in respect of convenience, many advantages over their vertical predecessors, advantages which are so well known and appreciated that it would be superfluous for me to specify them in detail. A wide experience of their use has, nevertheless, demonstrated that there are many grave objections to be overcome before they can be pronounced perfect in their action. The objections to which I allude may be briefly enumerated as follows:—1. The supply of gas is fitful and irregular, necessitating the greatest care in the use of the foot-key. 2. There is a want of correspondence between the amount of passage way allowed by the screw tap and the quantity of gas liberated. 3. The screw is liable to "set" whilst in use, so that the tap can be turned neither on nor off. 4. As a consequence of this condition the flow of gas becomes absolutely arrested, often to be re-established with surprising suddenness and violence. 5. The metal unions and indiarubber conducting tube after a time become frozen, so that the latter is often found hard and frosted to a distance of some feet from the bottle. It is needless to point out that any one of these difficulties occurring in the course of an administration may and does constantly give rise to the greatest inconvenience; it therefore seemed to me of considerable importance to determine the exact conditions upon which they depended, and if possible to devise some remedy. Experiments conducted with the same bottle, placed alternately in the horizontal and the vertical position, but under similar conditions in other respects, demonstrated conclusively that the above-mentioned difficulties occurred only when the bottle was horizontal. It seemed, therefore, probable that the main cause of the trouble was associated with the actual entrance of the liquefied gas into the channels of exit, and for the purpose of confirming this supposition, the actual position occupied by the liquid was theoretically determined in the following manner. On taking the inside measurement of one of Barth's fifty gallon bottles, the total capacity was found to be about 50·5 cubic inches. The weight of liquid nitrous oxide with which these bottles are supplied, and which is reputed to yield fifty gallons of gas, amounts to fifteen ounces, so that, taking the specific gravity of this liquid as 0·908 (at 45° F.), the space occupied by it would be 28·6 cubic inches, which is roughly three-fifths of the total capacity of the bottle. From these data it appeared that in the horizontal position the orifice of exit would be situated about a quarter of an inch *below* the surface of the liquid, whereas in the vertical position it would be entirely *above* it; and furthermore, at a distance of some three and a half inches. In order to test the influence of mere proximity, an experiment was then made with the bottle placed in an oblique position, so that although the orifice of exit was above the surface of the liquid, it was not more than half an inch distant from it. On allowing ten gallons of gas rapidly to escape, no difficulties of any kind occurred, thus proving beyond a doubt the correctness of the original supposition. Further explanation is amply yielded by the consideration of facts already well known. Nitrous oxide gas requires for its liquefaction a pressure of fifty atmospheres at 45° F., and this pressure being removed, the liquid at once resumes the gaseous form. In so doing an enormous quantity of heat is absorbed, and as a result the temperature at the surface of the liquid may fall as low as −150° F., at which point freezing occurs and a portion becomes converted into a snow-like solid. There can be little doubt that it is to the formation of this solid material, consequent on the rapid conversion into gas of the liquid which has gained access to the interior of the valve, that the complete fixation or "setting" of the screw is to be attributed; whilst the widespread freezing of the conducting tube &c. is to be similarly explained, small liquid particles being in all probability projected to some distance by the pressure of gas within the bottle.

Having satisfactorily determined the cause of the difficulty, there remained nothing further but to devise some simple mechanical means whereby the escape of liquid should be prevented when the bottle was used in the horizontal position. That which has been finally adopted consists of a small piece of metal tubing, screwed firmly into the entrance of the valve, and projecting from it into the interior of the bottle; it is curved in such a manner that its open end is directed upwards, and stands about one inch above the surface of the liquid. I have had several bottles fitted with this tube, and on subjecting them to numerous experiments, both clinically and otherwise, find that they fully come up to my expectations, their action in every way being as perfect as when used in the vertical position. In external appearance and weight, as may be gathered from the foregoing description, they are indistinguishable from the horizontal bottles hitherto in use.

The advantages secured by this simple contrivance will, perhaps, be best realised if I relate the details of my last two experiments, made a few weeks ago during the prevalence of a keen frost, and under conditions considerably more severe than are ever likely to occur in actual practice. In the first experiment a fifty-gallon bottle, containing fifteen ounces of liquid nitrous oxide, was connected by means of five feet of rubber tubing with a gasometer capable of holding three gallons. The screw tap being opened, gas was allowed to escape as rapidly as possible, three gallons passing into the gasometer in about five seconds. This operation was then repeated at short intervals, until, in all, thirty gallons had passed over. During the whole course of the experiment the flow of gas was uniform and free, corresponding accurately to the amount of passage way allowed by the screw valve; there was not at any time the slightest trace of sticking or "setting" of the tap, and at the conclusion the indiarubber tube, even close to the bottle, remained quite supple and felt barely cool to the hand. The total duration of the experiment was seven minutes. It should be added that after the liberation of fifteen gallons of gas a slight frost appeared on the brass union, and that after the escape of another ten gallons the bottle itself was slightly coated. This occurrence was evidently due to the condensation and freezing of ordinary atmospheric moisture and interfered in no way with the results obtained. In the second experiment the remaining twenty gallons were allowed to escape freely into the open air, the bottle being empty at the end of two minutes. As before, the flow of gas was practically continuous, and the screw tap remained throughout perfectly free in its movements. I venture to think that by means of this simple device the horizontal bottles are now brought as near perfection in their action as we can wish, and I feel sure that no excuse is needed from me in bringing this improvement before the profession, which numbers amongst its members many who take the warmest interest in any means whereby the administration of this valuable anæsthetic is facilitated. In conclusion, I would add that the new valves are made by Messrs. Barth and Co. of Poland-street, who very kindly assisted me in several of my experiments.

Welbeck-street, W.

CONSERVATIVE TREATMENT OF ADHERENT BUT FUNCTIONALLY ACTIVE OVARIES AND FALLOPIAN TUBES.

BY A. C. BUTLER-SMYTHE, F.R.C.S.ED.,
SURGEON TO OUT-PATIENTS, SAMARITAN FREE HOSPITAL FOR WOMEN, AND SURGEON TO THE GROSVENOR HOSPITAL FOR WOMEN.

IN this short paper it is not my object to discuss the treatment of those cases in which the ovaries and Fallopian tubes are obviously diseased, nor do I wish anyone to imagine that I advocate attempting to save those organs where they are completely matted together or embedded in

inflammatory tissue. But there are many cases where on opening the abdomen the operator finds that the ovaries and tubes are only partially adherent, and where no visible or tangible signs of disease can be discovered in these organs. Moreover, it is not always easy to decide, even when the abdomen is opened, whether an ovary is healthy or not. It appears to me that not infrequently it is the presence of adhesions of the ovaries and tubes, and this alone, that is the cause of the pain and other symptoms which have been complained of, and which have led to an intra-abdominal examination of the parts. Simple adhesions of these organs are not dangerous to life, nor do they necessarily destroy the functions of the ovaries and tubes. Why, then, should these organs be extirpated? The removal of the ovaries and tubes for such adhesions has always seemed to me an unnecessarily severe, almost an unwarrantable, proceeding; and I feel confident that the profession will welcome as an important improvement any method by which the conditions under consideration may be cured without resorting to such extreme measures. I hold that in such cases the separation of the adhesions and freeing of the ovaries and tubes can be accomplished, and is frequently sufficient to restore the patients to health, and, what is more to the point, the operation leaves them with functionally active organs. This treatment seems to me a most rational one, and I have operated in this way on three occasions, the results being most encouraging. I therefore venture to lay them before the profession, in the hope that the operation may be given a more extended trial. I am quite aware that the results of three cases are insufficient to prove the worth of this treatment; but I am convinced that in other hands than mine the operation will be productive of much good. However, if it but tends to limit the number of "spaying" operations, I shall be more than satisfied.

CASE 1.—C. N——, aged thirty-six, unmarried, came to me in 1887, complaining of dragging pains in the lower part of her abdomen, sickness, severe headache, and painful menstruation. She had been ailing for some years, but of late had become so ill that she had to give up her work and take to her bed. Bimanual examination revealed a fixed tender swelling, situated behind the uterus. Pressure on the swelling caused much agony and a feeling of faintness. The uterus was somewhat enlarged and retroflexed. I diagnosed adherent ovaries, and advised operative treatment. The patient, being most anxious to obtain relief, willingly agreed, and a few days later I opened her abdomen. The organs on both sides were found to be adherent. Without much difficulty I succeeded in freeing the left ovary and tube, and the right ovary also, but the Fallopian tube on that side was spread out and intimately adherent to the cæcum, and its separation gave some trouble and occupied much time. Sponges were packed down into the pelvis and left there until the sutures were inserted and the wound ready to be closed. By that time the bleeding had ceased. The patient recovered without a bad symptom, and returned home at the end of a month, relieved of her troubles. The next period was almost natural, and she soon regained her strength and resumed her work. Six months later she had an attack of inflammation in her abdomen, followed by rheumatism, which confined her to bed for some weeks. Since then she has been in poor health, and her heart is permanently affected. Her uterus is movable, and the fixed lump behind it is absent, but one could, at her last examination, trace the remains of an old cellulitis, the result of her attack of inflammation in 1888.

CASE 2.—R. M——, an unmarried lady, was sent to me in 1888. Her history was as follows: Menstruation began at the age of ten and the periods were irregular for some years. She suffered from pain before the flow, and her losses were excessive, lasting as a rule eight days. She was strong and healthy up to her twenty-fifth year, but about that age caught cold when menstruating, and her illness dates from that event. Between her twenty-fifth and twenty-seventh years the periods became increasingly painful, and she complained of backache and dragging pains in her abdomen when standing or walking. For close on two years before she came to town most of her days had been spent in bed. Attacks of vomiting came on, rare at first, but increasing in frequency till they recurred at all hours. Her appetite failed, emaciation set in, and she rapidly got too weak to leave her bed. During her long illness every possible treatment had been tried, but without success. Her friends therefore advised her to come to London for further advice. On examining bimanually I found the uterus tilted forwards, and behind it a fixed swelling, pressure on which caused exquisite pain and a sensation of sickness. She was seen in consultation by two eminent specialists and the diagnosis made was "adherent ovaries." It was decided that the organs should be removed, but the patient strongly objected to have her ovaries taken away. I therefore proposed to open her abdomen, and attempt to separate the adhesions and free the ovaries and tubes, as I had succeeded in doing in a former case. At the same time I reserved to myself discretion to remove the appendages if I found them diseased. This being agreed to, the operation was performed about a week later in the following manner:—The abdomen was opened in the middle line, the incision being nearly three inches in length. Introducing two fingers of my left hand, I ascertained by touch the extent of the adhesions on both sides, and having satisfied myself that the ovaries and tubes could be freed, I proceeded to separate the adhesions on the right side, taking care to keep my finger-nails as much as possible away from the ovary, so as to lessen any chance of injury to it. There was free hæmorrhage during this part of the operation, but the bleeding was controlled by packing sponges down over the abraded surfaces. The released ovary and tube were then brought to the abdominal opening and inspected, both for the purpose of noting any diseased condition, and of seeing if they had sustained any injury during the separation of the adhesions. A small flat sponge was then placed beneath the tube, which was then straightened out by running it between the fingers from the uterus towards the fimbriated extremity, the reasons for doing so being to break down any small adhesions between the ovary and tube, and to expel any fluid that might be contained in the tube; also to force open the ostium tubæ, should it be closed, as is frequently the case under such conditions. The fimbriated end was then well cleaned with a sponge steeped in corrosive sublimate solution (1–1000). The ovary and tube on the left side were then treated in a somewhat similar manner; but in this instance there was troublesome bleeding from the surface of the ovary, pressure in a hot sponge, however, quickly controlling it. The deeply packed sponges were left *in situ* till the last moment before closing the wound, as in my former case, and when they were removed the wound was closed, the ordinary peritoneum toilet being dispensed with in order to avoid any chance of setting up fresh hæmorrhage. No drainage was employed. The wound was dressed with carbolic gauze, and the patient was put back to bed within an hour. She made a good recovery, and gave me no trouble whatever. There was a little ether sickness, but when that passed off there was no return of the vomiting. The period came on a week later, without pain, the flow lasting six days. At the end of four weeks she was out of bed, and two weeks later went to the country quite relieved of her aches and pains, and able to take care of herself. Previously to her departure a careful examination was made of the pelvis, and the contents were found to be in a normal condition. Six months later the patient reported herself "much improved in every way. No return of sickness or pain, and able to take lots of exercise without feeling fatigued." In 1889 she wrote saying, "My health is excellent. I have gained 28lb. in weight, and can walk miles without feeling overdone. The periods are almost painless, and I have had no sickness." In April, 1890, I examined her pelvis, and found the contents in a most satisfactory condition. She was then in excellent health and spirits, and informed me "that she was organist at an institution, and had been playing twice a day for months." Two years ago she was an emaciated creature racked with pain and confined to bed, and now she is a robust young woman, well able to enjoy life.

CASE 3.—S. S——, aged thirty-seven, was sent to me for operation in 1888. She had been married four years, but had no family. Her illness dated from a miscarriage in 1886, and since then she had been getting worse and worse, the chief symptoms being sickness, backache, and dragging pains in her abdomen. The vomiting recurred at all hours, day and night, and was always preceded by sharp pains in the lower part of her abdomen. She was much worse immediately before her periods, and had to lay up at those times. For six months before I saw her she had been unable to work or attend to her household duties, and had been more or less confined to bed. She was much emaciated, and looked careworn and depressd. On examining the

pelvis I found the ovaries prolapsed, adherent, and exquisitely tender on pressure. The uterus was somewhat enlarged but movable. I was requested to remove the ovaries, but suggested that the adhesions might be separated and the organs released with a fair chance of relief and possibly of cure. The patient and her husband agreeing, I opened her abdomen and without much difficulty released the ovaries and tubes on both sides, the only trouble throughout the operation being rather free hæmorrhage during the separation of the adhesions, which was, however, completely controlled by sponge-packing. The operation lasted about an hour. The patient did remarkably well and went to her home in about six weeks, relieved of her sufferings and in capital spirits. From the date of the operation the sickness stopped entirely for two months. Her periods were almost painless and unaccompanied by vomiting. On examining the pelvis previously to her departure, the ovaries were found to be free, and the uterus movable, but enlarged. She has remained fairly well ever since. In September, 1890, she was in good health, had grown very stout, and declared herself free from her old troubles. Her uterus was then enlarged, and her ovaries could be mapped out free in her pelvis.

N.B.—Since writing the above cases, I have assisted at two operations of a similar nature, where the ovaries and tubes on both sides were dexterously and quickly freed. Both patients have done well so far. In one case the peritoneal cavity was flushed out after the operation and a drainage-tube inserted; in the other, drainage was employed without any washing out of the abdomen.

Brook-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TRAUMATIC CEPHAL-HYDROCELE.

BY R. CLEMENT LUCAS, B.S., F.R.C.S.,
SURGEON TO GUY'S HOSPITAL.

THE advantage of a term lies only in the correct grouping of things it may indicate, and it would be a misfortune if the interesting case reported by Mr. Burton in THE LANCET of Jan. 10th under the title of "Traumatic Encephalo-meningocele" were to be mislaid through a title which might divorce it from its natural associates. Traumatic cephal-hydrocele is not a term of my invention, but it has the advantage of implying nothing more than can be proved clinically, and I am therefore in accord with Mr. T. Smith in a desire to adopt it. The only difference between Mr. Burton's case and many others now collected rests in the fact that the fracture was at first compound, but the primary union of the wound left the condition of parts precisely as if the scalp had been untorn. It is altogether a gratuitous assertion that "absorption of a necrosed circular portion of the bone occurred, and the meninges and brain substance were gradually protruded through the wound." There is no proof whatever of the meninges having protruded, whereas damaged brain substance is not unfrequently met with in severe penetrating fractures. I am afraid Mr. Burton will think me over critical if I object also to the term "necrosis" in relation to the case. The absorption of osseous tissue which takes place in these cases is one of their most remarkable phenomena, and it is not preceded by necrosis, but is comparable rather to the pressure absorption brought about in bone adjacent to an aneurysm. That the aperture should close by fibrous tissue and leave no prominent tumour is again in accordance with the experience of the majority of cases which have recovered. The author further volunteers the remark: "I do not think the fluid communicated with the ventricles," but this is a mere speculation; and if I were to say, judging by the experience of other cases, that I have little doubt that the lateral ventricle was opened, I should appear guilty of a direct contradiction; so I prefer, in the absence of a post-mortem examination, to leave the matter open.

Finsbury-square, E.C.

A CASE OF SPINAL HÆMORRHAGE.

BY R. REGINALD SLEMAN, B A. CANTAB., L S.A. LOND.

I WAS some time since called to see J. A. G——, aged twenty-eight, a clerk, single. He had been unable to pass his urine for twelve hours, and had sent for me to draw it off for him. Finding the bladder distended, I passed a full-sized catheter and drew off a considerable quantity of urine, noting at the time a urethral discharge due to gonorrhœa, which at first sight might have accounted for the retention. However, it was noticed that the patient had great difficulty in adjusting his position for catheterisation, and on my remarking this, he said that during the day he had "felt his legs drag," and although he had managed to get to business, had experienced great difficulty in getting home again. This condition of affairs culminated at night, when I found the patient in the following condition: Total loss of power and sensation in both lower extremities; reflexes absent entirely. Temperature normal. Loss of power over bladder and rectum. There was also an absence of pain in any situation. This condition of affairs continued with little or no amelioration of the symptoms. Loss of power in the rectum was somewhat less after a time, but bedsores developed over the buttocks, which, however, the patient did not feel much inconvenience from, as there was little or no sensation in the part affected. Cystitis had soon set in, the temperature varying from 102° to 100°; and although the extremities were manifestly hot to the touch, yet coldness was felt in them—another instance of perverted sensation. Six months later there was a slight improvement in the condition of the left leg, which had recovered some power. This proved to be transitory, and secondary degenerative changes in the cord and muscles rapidly followed, and with them markedly increased reflexes and spastic rigidity, the latter condition deriving some benefit from hypodermic injections of hyoscyamine; when last seen the patient had relapsed into his former condition. The usual remedies, such as iodide of potassium, galvanism, &c., were tried, but without any good result. I believe this to have been a case of spinal hæmorrhage, the sudden invasion, the temperature (which was normal at first), and the symptoms generally, point to this diagnosis, especially the total loss of power and sensation in such a very short time. The family history showed that there was phthisis in two of the patient's sisters, but the parents were living, and in good health; there was also a very doubtful history of syphilis, which disease was said to have been contracted by the patient six months previously to the onset of the symptoms here recorded.

St. Benet-place, E.C.

CASE OF MEASLES: OBSCURE SYMPTOMS.

BY J. B. HARRIS, M.D.

THE following interesting case so baffled diagnosis for some days that I think it worth recording.

On Feb. 3rd I was called to see a lad who had been suffering from diarrhœa for ten days. I found on my arrival that the motions were reduced in number to three in the twenty-four hours. These were described as simply coloured water, and were discharged with great force. The boy was in bed looking extremely ill, but in no pain anywhere, and said he felt "all right." The temperature was 102°, tongue covered with a white fur; the abdomen exceedingly distended and tympanitic. On pressure gurgling was produced everywhere except in the right iliac fossa. The pressure did not cause any pain. The next day he was much worse; abdomen still more distended. The gurgling now occurred at intervals without pressure, and was so loud at times that it quite startled the nurse; when this happened the child felt pain, but none on pressure. The temperature was 104·4°, and there was well-marked opisthotonos. In the evening Dr. G. F. Barnes saw the case with me. As we could not obtain any evidence of the patient having had a proper motion for over ten days, only what was described to us as "water," the question was discussed as to whether it was a case of partial intussusception; but there had been no vomiting, no passing of mucus or of blood. Examination per rectum revealed nothing. We were therefore bound to make the unsatisfactory report to the parents that the child was in a most critical state, but that the cause of the dangerous symptoms

we were at present unable to discover. Early on the following morning I received a telegram, "Harold has a rash." I found on my arrival the patient much better. Temperature 103°; abdomen smaller; no opisthotonos; but he undoubtedly had measles. The next day the temperature was only 101°, and on the following normal. All catarrhal symptoms had been absent.

West Norwood.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF ASTHMA, WITH POLYPI AND HYPERTROPHY OF THE TURBINATED BODIES; OPERATION; CURE.

(Under the care of Dr. CHOLMELEY and Mr. SPENCER WATSON.)

IN this case the relationship between disease in the nose and asthma, as cause and effect, appears to have been clearly established, the paroxysms having ceased after effectual treatment of the nasal disease. Other and varied treatment had been tried ineffectually for many years. Dr. Bosworth[1] considers that in view of the results of treatment it may be fairly claimed that of the three elements which enter into the causation of asthma—viz., a neurotic habit, the nasal disease, and atmospheric conditions—the nasal disorder outweighs in importance the other elements of causation. Of eighty cases under his care, forty-two had been cured and thirty much benefited by nasal treatment. He[2] recommends the use of cocaine in the nose during the exacerbation, and, from the benefit which he obtained, even where no definite disease could be found, considers that there is usually some lesion present, though it may be obscure. Dr. Ayres[3] has given a series of ten; in the majority it was of old standing, and the disease yielded only and at once to well conducted cauterisations of diseased portions of the nasal cavities. Cases of a similar kind are recorded by others,[4] which only recovered after treatment of some affection of the nose. In a discussion at the Berlin Medical Society[5] in 1887, the general opinion appeared to be that the number of these cases benefited by cauterising the nasal mucous membrane was small. The view on the question held by Dr. West,[6] and expressed by him in a recent paper read at the Medical Society, will be still fresh in the memory of our readers.

Mary B——, married, aged thirty-five years, admitted in September, 1890, was a stoutish, fair-complexioned, and well-nourished woman, with somewhat short breath and an occasional livid look about the lips. She had suffered from asthma for eighteen years, and at the time of her admission the attacks came on about 12 P.M. every night. They were very violent, and caused much distress. She had been under treatment at hospitals and in private, but with no benefit. She stated that she had twice contracted some disease from her husband. The nostrils were obstructed, but not completely. Mucous crusts covered the turbinates. The thorax was very emphysematous and hyper-resonant, and with very limited expansion; heart sounds regular, but feeble. On anterior rhinoscopy a roundish, grey, pendulous mass was seen in the right nostril, attached to the anterior end of the inferior turbinate bone. In the left nostril were several translucent polypi. The breath channel was not completely obstructed, but breathing through the nostrils was very laboured and difficult. After treatment by various medicines, of which the most successful was nitrite of amyl, the patient was transferred on Oct. 10th to Mr. Watson's care, and now the solution of cocaine (20 per cent.) was applied freely in both nostrils, with some temporary relief.

On Oct. 15th, under the influence of cocaine, some of the masses of hypertrophied tissue were removed by the snare, and on the 23rd further portions of the fringe and the lower turbinate of the right side were removed by the ring knife, the same instrument being used for the removal of several polypi from the left nostril. This was done under chloroform. There was a slight rise of temperature (100·4°) on the day of this operation, but it speedily became normal and the asthmatic paroxysms have almost entirely ceased.

Jan. 8th, 1891.—Though some slight threatenings of asthma have once or twice shown themselves, they have always subsided under the application of cocaine. The patient is now in perfect health and considers herself cured.

Remarks.—The rapid and persistent recovery after asthma with emphysema of eighteen years' duration is very noteworthy. The operation chosen—viz., by the ring knife under the influence of chloroform—seemed to Mr. Spencer Watson the preferable one in this case, as the clearing of the nostrils by means of repeated operations with the snare would have caused a less relief of the nasal breathing and would have failed in giving a sudden blow to the morbid habit which has so much to do with the persistence of asthmatic seizures. Many cases of relief of asthma by intra-nasal operations have now been put on record by recent authors, but few can compare with the above as to the completeness of relief after the long period of eighteen years of confirmed asthma.

[1] New York Med. Journ., vol. ii. 1889, Sajous.
[2] Amer. Journ. of Med. Sciences, Sept. 1888.
[3] New Orleans Med. and Surg. Journ., vol. ii. 1888.
[4] Medical Record, July, 1888; Bristol Med. Chir. Journ., March, 1888.
[5] Berl. Klin. Wochen., 1887.
[6] THE LANCET, vol. ii., 1890, p. 1100.

NORTH RIDING INFIRMARY, MIDDLESBROUGH.

A CASE OF OSSIFYING MYOSITIS; OPERATION; REMARKS.

(Under the care of Mr. F. MUNRO.)

AS a result of chronic inflammation true bone formation may take place in muscle, and this development may be either localised or general. In the localised variety the inflammation of the connective tissue is usually the result of repeated slight injuries; here there appears to have been no such cause, for apparently the bony tumour was found five weeks before admission in consequence of the part having received a knock, which first attracted attention to it. The case of a boy is given by Abernethy, in whose muscles bony tumours developed after blows or other injuries. These bony plates may require removal on account of their interference with the movements of a part, either from their size or position. Hayem considered that there was a close relation between the generalised disease and some nerve lesion. We have not now under consideration the occasional ossification of muscle as a consequence of syphilitic myositis, the developments of bone found near a joint the subject of Charcot's disease, or that found in close proximity to exuberant callus. The condition of which a description is given below, the formation of a large isolated plate of bone in a muscle not subjected to pressure, in a patient presenting in other respects no evidence of disease, belongs to a different class. For the following account we are indebted to the house surgeon, Mr. G. Victor Miller.

J. A——, aged twenty-four, was admitted into the North Riding Infirmary on May 15th, 1890, suffering from the effects of a blow on the right thigh. The patient stated that he had been playing football on Easter Wednesday, when he came into collision with another player, whose knee struck him on the front of the right thigh, incapacitating him from work for three days. A week after the accident he noticed a hard swelling an inch and a half above the outer side of the knee-joint. It got larger, and five weeks after the accident he sought medical advice at the above institution. On examination, there was found what seemed to be a lump of bone lying loose in the muscles of the outer side of the thigh. It was about eight inches long, narrow and projecting at its lower end and approaching the surface, but broadening out as it passed up the thigh and lying more in the muscles. It was slightly movable except at its upper end. The patient could walk about fairly well with assistance of a stick, but was able to flex his leg only very slightly; and his occupation—namely, that of a moulder—being one in which there is a good deal of kneeling, the inability to flex the leg on the thigh, along with some

pain, caused him great inconvenience. Diagnosis was difficult, and after a fortnight's rest in bed with the leg on a splint it was decided to cut down on the mass. Accordingly, on June 1st an incision, three inches long, was made over the projecting portion. On feeling the mass through the wound, it was found to lie in the substance of the vastus externus, being separated from the femur by a sheet of fibres. The muscle covering it was raised bluntly with the handle of the knife, and it was then seen that we had to do with a slightly curved plate about eight inches long, arising from the origin of the vastus and the linea aspera. It was fully a quarter of an inch thick at its origin, thinning out as it passed outwards and forwards. The broadest part measured about three inches. Nearly the whole of it was removed with bone forceps. The wound was sutured, two large-sized drainage-tubes inserted, then covered with wood-wool pads. It closed without a bad symptom, and the patient left the hospital quite well on July 6th.

Remarks.—This was without doubt a case of ossifying myositis of very large extent. A somewhat similar case, but not nearly so large, has been recorded by Orlow, as cited by Virchow in his Annual for 1889, from which we here quote:—"Orlow had the opportunity of examining an osteoma of the adductor longus which had developed in a cavalry captain. The captain, in setting his horse to leap a ditch, suddenly felt a severe pain in the inguinal region. For five months after he had constant pain, and at the end of that time he remarked a growth of bony hardness. About five and a half or six and a half centimetres below the left inguinal fold there was a small elevation in the skin of the inner side of the thigh. This was caused by the sharp end of a bony plate fastened to the pelvis, but movable. It was superficial, and the skin was movable over it. When removed, it was found that the connexion between the bony plate and the pelvis was completely movable. The fibres of the adductor longus were attached to the whole inner margin of the bony plate. The development of bone had taken place at the upper end of the muscle. The longitudinal section of the growth showed medullated bone of a dark-red colour without any distinct cortical substance. On microscopic section it was seen to be composed of nests of bone cells separated from each other by fibrous tissue. The base of the growth was covered by a firm pale lamina resembling cartilage. The medullary spaces were filled with a delicate tissue consisting of irregularly branching fibres and different kinds of cells (round and spindle) of various sizes. A great part of the spaces were occupied by bloodvessels crammed with blood-corpuscles. The cartilaginous connective tissue layer of the tumour was composed of a fibrous stroma containing spindle cells. Distributed in this lamina were remnants of cartilage with a delicate fibrous stroma, round or oval cells enclosed in a distinct capsule. Orlow assumes that both periosteum and intermuscular tissue took part in the process." Portions of the growth removed from our patient's leg were sent for examination to Professor Greenfield, of Edinburgh University, along with an account of the history of the case and that of Orlow. He has very kindly sent us the following report, along with sections for the microscope:—"The case is one of great interest and rarity, and corresponds in almost every respect to that of Orlow, quoted by Virchow, to which you referred, the chief difference being the absence of such marked vascularity and also the absence of cartilage. I think the case is one of typical ossifying myositis." In conclusion, it may be added that the patient was seen recently and the leg examined. It is as well as ever it was. There is no pain, no sign of any return of the growth; he can flex the leg fully, and has not lost a day's work since leaving the hospital.

HORTON INFIRMARY, BANBURY.

GENERAL EMPHYSEMA AFTER FRACTURE OF THE RIBS.

(Under the care of Mr. C. L. H. PEMBERTON.)

EMPHYSEMA of traumatic origin is very commonly met with as a result of fracture of the ribs with wound of the lung, and from that point of view the following case presents nothing unusual. But if we consider the great extent of the emphysema met with here and the serious state induced by the distension of the subcutaneous tissue, and that asphyxia was only prevented by the multiple punctures made, we have an unusual condition and one alarming both to the patient and surgeon. The risk of cellulitis after incision for general emphysema being considerable, resort is only had to it in extreme cases. For the account of this case we are indebted to Mr. Herbert Kershaw, M.R.C.S., L.R.C.P., house surgeon.

A. G——, carpenter, aged forty-four, was admitted on Sept. 26th, at 5 P.M. A few minutes previously he had been working on a ladder, when he slipped and fell a distance of about five feet, pitching with his right side across a log, the blow being received over the sixth, seventh, and eighth ribs in the mid-axillary line. He was collapsed, cyanosed, pulse hardly perceptible, respiration quick and noisy, and complained of difficulty of breathing. A swelling extended over the whole of the right chest and back; the skin where the blow was struck was slightly bruised; the swelling rose and fell with respiration. A crackling sensation of emphysema was found over the middle of the swelling, and occasional crepitus from the broken ribs. A loud vesicular murmur was heard over the swelling, as though the stethoscope was in contact with the lung. Hot brandy-and-water was given, hot bottles were placed around him, and he was covered with blankets. When he rallied he complained of dyspnœa, and was much cyanosed. His breathing was noisy, and he spat dark blood. Two hours after the injury the man was of enormous size; very emphysematous all over. Crackling was felt on the scalp, soles of the feet, and tips of the fingers. His features were entirely obliterated, and he was quite blind; neck distended, level with chin, and sloping towards shoulders; scrotum the size of a football. The man was crying out that he was suffocated. A large aspirating needle was thrust in over the seat of injury, the air being expelled with great force through it. Some dozens of punctures were made in the cellular tissue, the noise of the air rushing out resembling a swarm of bees. Relief was immediate, the man holding his breath and expiring with great force. At 10 P.M. it was necessary to puncture the skin again, especially around the neck, the air having accumulated to an enormous extent; relief was as marked as on the former occasion.

Sept. 27th.—2 A.M.: He was fairly comfortable, but expectorated blood freely, the exertion and pain of expectoration exhausting him somewhat. 10 A.M.: Pressure was tried over the injured side. 1 P.M.: The emphysema again increasing, punctures were again resorted to, the man urgently requesting that it might be done.

28th.—2 A.M.: He commenced to spit blood freely again. A hypodermic injection of morphia was given. He remained in a dozing condition all day, but became restless again at night; expectoration was now only slightly tinged with blood. Temperature 103°.

29th.—2 A.M.: Hypodermic injection given; result good.

Oct. 1st.—Emphysema subsiding, so that he was able to see out of his eyes. Needle removed from chest.

2nd.—Temperature normal; general condition good. An extravasation of blood under the skin extending from the right to the left side of the chest. This was quickly absorbed. Respiration only slightly increased. Slight pain on coughing. He says he is quite well. He never had any further trouble except that of his attendants impressing upon him the necessity of keeping still.

On Oct. 13th he left the hospital at his own request, and a week later he went to work.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Hypertrophied Kidney with Dilated Pelvis.—Imperforate Rectum.—Aneurysm of the Aortic Arch opening into the Superior Cava.—Cervical Teeth.—Columnar-celled Carcinoma of Humerus secondary to Carcinoma of Rectum.—Carcinoma of Kidney.—Effects of Intra-uterine Pressure on the Fœtus.

AN ordinary meeting of this Society was held on Feb. 17th, the President, Dr. W. H. Dickinson, in the chair.

Dr. JOB COLLINS read a paper on a case of Hypertrophied Kidney with Dilated Pelvis. It was taken from the body of a man aged fifty, who died in the London Temperance Hospital from malignant disease of the œsophagus. It was situated in the usual position in the left loin, weighed 5½ oz., was rough on the surface, evidently hypertrophied or unusually large, had greatly dilated pelvis opening into

ureter, which readily admitted the finger. The vesical orifice of the ureter was stated to have been valvular; the bladder was dilated, the mucous membrane injected, at the base some dark puncta. The right kidney was noted to have been represented only by "a small dark flaccid mass, little more than 1 in. in length"; a ureter the size of a lead pencil, however, led from this to the bladder. There was apparently no true renal tissue in the mass representing the kidney. The rapidly fatal termination of the case appeared to have obviated any clinical examination of the urine. The case appeared to be one of asymmetrical hypertrophied kidney, the result of destruction of the opposite kidney, probably from a completed hydronephrotic atrophy, a similar earlier condition of dilated pelvis and ureter occurring in this kidney also. It was, therefore, not one of the exceedingly rare cases of single kidney from congenital absence, but of the less rare, but still rare, variety of asymmetrical kidney from atrophy of its fellow. The important bearing of the occurrence of such cases was sufficiently obvious in cases where nephrectomy for hydronephrosis or tubercle of kidney was contemplated.

Mr. STEPHEN PAGET showed three specimens of Imperforate Anus. The first was from a very small, feeble infant, a thirteenth child, never at the breast. He did a left inguinal colotomy, and ten days later he passed a director down the bowel, and was able to evert the cul-de-sac and push it out at the anus and open it easily. But the baby did not thrive, and died at five weeks old. The second came from a small, feeble infant. He found the bowel at the depth of an inch, opened it, and dragged it down. The child died at six days old, and was found to have only one kidney, the right being undeveloped. There was ulceration of the opened bowel. The third specimen was from an infant that had gone thirteen days unrelieved. Mr. Paget failed to open the bowel in the cul-de-sac, and passed instead into the peritoneal cavity; he therefore made a small median incision above the pubes, and attached the dilated bowel here and opened it; but the infant never rallied, and died the second day after the operation. At the necropsy some peritonitis was found round the wound, but there was no extravasation or giving way of the bowel. A Meckel's diverticulum from the small intestine was found. Mr. Paget called attention to the coexistence of other malformations in these cases and to the difficulties of operating on them.—Mr. BLAND SUTTON had examined post-mortem several fœtuses with imperforate rectum, and in five of these he had found the kidneys abnormal. In one, the kidneys and ureters were represented by mere fibrous tissue; in the others, the kidneys were sacculated. The rectum in these cases occupied the cavity of the pelvis, and was in each case much distended. The pressure of this over-distended rectum was doubtless the cause of the obstruction to the ureters, with subsequent sacculation of the kidney.—Mr. BOWLBY understood Mr. Paget to say that he had not found a ureter in connexion with the kidney which he had described, and Mr. Paget said that this was so.—Mr. SYMONDS of Oxford referred to two cases of imperforate rectum. In one, after endeavouring to reach the rectum from the perineum—unsuccessfully, however—he had performed colotomy. After some time the rectum burst on to the surface of the body at the proper place. In a second case also he had been obliged to perform colotomy, after endeavouring to reach the rectum from the perineum. The operation was a difficult one in many instances, and in this case was not successful.—Mr. W. G. SPENCER thought that Mr. Sutton's suggestion, that the conditions found in the kidneys in these cases was due to over-distension of the closed rectum, was difficult to understand.

Dr. W. M. ORD described a case of Aortic Aneurysm communicating with the superior cava, taken from a police constable aged forty-three, admitted to St. Thomas's Hospital, Nov. 14th, 1890. Patient had been a constable for thirteen years, and previously had led a life of very hard work; no history of syphilis or intemperance. Five months before admission he began to experience a pricking sensation in the right side of the chest, accompanied by dysphagia and inability to lie on the left side. When first seen he showed marked lividity of the face and ears, and the right side of the neck and chest was œdematous, with turgid superficial veins. No tumour of the chest was visible, but there was marked dulness from the right border of the sternum outwards between the upper border of the second and the upper border of the fourth ribs. There was pulsation, but no thrill over this area. On auscultation there was a long-continuous humming murmur, never ceasing, but varying in intensity, being more sonorous during cardiac systole, fainter during diastole, conducted into the neck and heard over the whole of the right side of the chest posteriorly. The cardiac area of dulness was increased, and there was a musical apical systolic murmur, distinct from the continuous murmur. The radial pulses were equal, the arteries were thickened; no ascites or anasarca. For the first ten days in hospital patient improved decidedly, but on Nov. 26th there was marked increase of the facial œdema and sharp dyspnœa; signs of pressure on the upper part of the right lung developed, and the patient died somewhat suddenly on the night between Dec. 3rd and 4th. On post-mortem examination the right pleura contained about eight pints of fluid and clotted blood; a small perforation opening into it was found in the sac of the aneurysm near the root of the lung. The aneurysm began two inches from the aortic valves, but the first part of the aorta was atheromatous; the sac was about the size of an orange, and, except for a little pale adherent clot, was empty. In the interior a small slit in the sac, about half an inch in length, opened directly into the superior vena cava, two inches below the union of the innominate veins. Reference was made to two cases occurring under Dr. Bristowe in St. Thomas's Hospital, which presented similar physical signs.—Mr. RAYMOND JOHNSON mentioned a case that had been described by Dr. Arkle at the Clinical Society, which agreed almost exactly with Dr. Ord's case, both clinically and pathologically.—Dr. SEYMOUR TAYLOR thought the chief interest in the case under discussion was in connexion with the characters of the murmur that had been present during life. He had listened both to this and also to Dr. Bristowe's cases. The late Dr. Murchison had shown that there were four signs indicative of aneurysm, and to these he thought a fifth might be added—namely, diastolic shock, the importance of which Dr. Ord had previously pointed out. A murmur in the sac of an aneurysm if produced by the contraction of the wall of the sac would be synchronous with the cardiac diastole. A musical humming murmur would be the kind of murmur likely to be produced by the contraction of the sac wall, and it might be compared to that heard in cases of congenital heart disease in which there was an imperfect ventricular septum.—Dr. EWART referred to a specimen in St. George's Hospital museum in which there was a communication between an aortic aneurysm and the superior vena cava. During life there was very great pressure on the veins at the root of the neck. In order to try and give relief, venesection had been performed and the blood had escaped from the open vein in jets as though from an artery. Although he had not recognised the full significance of this at the time he felt that it was a point of much importance, and asked Dr. Ord if he had noticed any venous pulsation in his case.—Dr. HADDEN had seen Dr. Ord's case during life and also the two cases of Dr. Bristowe's that had been mentioned. He would prefer to describe the murmur as a continuous one with a wave of greater intensity in it. A murmur of this character was not absolutely diagnostic of aneurysm, as such murmurs had been known to occur in very vascular sarcomata, and, indeed, murmurs had been heard in sarcomata situated in the thorax and elsewhere.—Dr. ORD, in reply, stated that no pulsation could be detected in the veins of the neck owing to the œdematous condition of the parts, and that there was no pulsation in the veins of the arm. Dr. Hadden's remarks with reference to sarcomata were very important; he had himself occasionally heard murmurs over sarcomata which were of much the same quality of tone as the one in the case under discussion, but varied in time by not being so continuous.

Mr. BLAND SUTTON first showed a Sheep's Ear in connexion with which was a persistent second branchial cleft, and attached to it was a flap of skin known as a cervical auricle. The edge of this flap was covered with papillæ like those found on the lip of a sheep, and in the cleft there was a tooth somewhat similar to a sheep's incisor. The second specimen was a tooth which had been removed from a persistent second branchial cleft in a horse. Teeth had been found in connexion with the petrous bone in oxen, and two cases had been described by Magittot, which were preserved in the Veterinary Museum at Alfort, near Paris. Teeth had occasionally been found in the second branchial cleft in man, and he mentioned one case in which a tooth was cut behind the angle of the jaw in the neck, in the usual position of the second branchial cleft; this had been

erroneously supposed at the time to be a wisdom tooth which had wandered.—Dr. ORD asked whether the teeth conformed to the mammalian type, or approached that of some of the lower vertebrates, as some fishes had teeth on their branchial arches.—In reply, Mr. BLAND SUTTON stated that the teeth were of strictly mammalian character. He then referred to dermoid cysts, the contents of which also conformed to the type of the animal in which they were found. It was, however, interesting that teeth had only been found in dermoid cysts, which were connected either with the ovary or the neck.

Mr. BERNARD PITTS showed a specimen of Columnar-celled Carcinoma of the Humerus secondary to Tumour of the upper part of the Rectum, which was removed from a woman aged thirty-two, who was admitted into St. Thomas's Hospital in February, 1890, with obstruction of the bowels, caused by a large growth in the upper part of the rectum. Symptoms dated from her last confinement eighteen months previously. For the last year she had been losing flesh, and suffered from profuse and offensive diarrhœa. The distension of the abdomen was so great on admission, and the rectal examination revealed such a hard and fixed growth of the bowel, that he performed left lumbar colotomy, and opened the bowel at once. After the abdominal distension had subsided, a hard mass could be felt through the abdominal wall in the left iliac region, but from its extent and its attachments it was not thought advisable to attempt excision of the growth; so she left the hospital on April 6th, having gained flesh greatly, and she was in fair general health. She was able to do ordinary household work, and suffered comparatively little inconvenience from the artificial anus. Early in November, whilst making her bed, she felt her arm suddenly snap, and was unable to use it afterwards. She was admitted again into hospital, under Mr. Pitts, in December, in an emaciated condition, suffering great pain from a large tumour of the right humerus, with a fracture about the middle of the bone. The rectal tumour had increased somewhat in size, but there was no evidence of further growth within the abdomen or elsewhere to be detected. On Dec. 24th, 1890, he amputated at the shoulder-joint by skin-flaps, having first ligatured the vessel in the axilla. The patient made a rapid recovery, and left the hospital on Jan. 14th, 1891, with a perfectly healed stump, and having gained flesh and strength in a surprising manner. The tumour of the humerus shown was of large size, and in appearance very like an ordinary subperiosteal sarcoma which had infected the medullary cavity. A microscopic examination of the tumour made by Mr. Shattock showed it to be, as expected, a columnar-celled carcinoma, so perfect in character that it would be impossible to distinguish it from a similar growth in the rectum. Mr. Pitts in his remarks stated that he could find no reported cases of such a growth in bone secondary to tumour of bowel, but referred to a similar case which involved the humerus, recorded in the Pathological Transactions for 1886 by Mr. J. Hutchinson, jun., where, however, no primary bowel tumour had been found during life, and no abdominal symptoms had been present. Unfortunately in this case a post-mortem examination had not been allowed. In the present case it was quite clear that the tumour could not be described as a cylindrical sarcoma, and the specimen showed how closely in general appearance a carcinoma of bone might resemble a sarcoma. The life-history of columnar carcinoma of bowel had not been satisfactorily determined, for the growth was often present for a long time without giving rise to any direct symptoms. It might remain local for a year or two, not even implicating surrounding structures. So few of these tumours had been removed at an early period that it was impossible to form an estimate as to the prognosis in early and complete excision, but it must be more hopeful as regarded life than in carcinoma in most other places.—Mr. STEPHEN PAGET read the following statistics which he had collected:—Out of 40 cases of cancer of the rectum, in only one had there been secondary deposit in bone (femur). In 291 cases of cancer of the alimentary canal from the lip to the anus, only 3 presented secondary deposit in bone; one (the one mentioned above), one from the lip, and one from the cheek, both the latter with a secondary deposit in the fifth rib. In cancer of the uterus, out of 200 post mortems, no bone was secondarily affected, whereas in cancer of the breast, out of 205 cases, the humerus had been affected 6 times, the femur in 11, and many other bones. Of German statistics Gussenbauer had collected 903 cases of cancer of the stomach, and no mention was made of any bones having been affected. Sprengel, in 131 cases of cancer of the breast, showed the femur affected four times, and the cranium and other bones somewhat frequently. Torok, out of 336 cases of cancer of the breast, found the humerus affected in 5, the femur in 3, and many other bones. In malignant disease of the thyroid secondary deposits in bone were particularly liable to occur. Out of 24 cases which he had collected the bones were affected in 16. It did not appear to be a mere question of embolism, for particular parts of bones, such as the upper half of the femur and of the humerus, were especially liable to be affected. He asked Mr. Pitts if in his case any other bones had been affected. He said that Torok had found that in many cases there was an unusual brittleness of bone.—Mr. R. WILLIAMS said that fragilitas ossium in cancer was quite distinct from metastatic deposits. Secondary deposits in bone were found in several cancers besides those in the breast, and he believed sometimes with uterine cancer. He considered secondary deposits in bone to be undoubtedly embolic; in Mr. Pitts's case it was interesting that so large a tumour must have grown from a single cell, as he had no belief in any spermatic influence.—Mr. R. JOHNSON mentioned a case that was in University College Hospital about two years ago in which there was secondary growth in the humerus. It was thought at first to be a sarcoma, but on examination was found to be carcinomatous, though no primary deposit had then been found, but later a small ulcerating growth in the cervix uteri was discovered. The case was interesting from the large size of the secondary deposit, as compared with the small primary growth. He mentioned another case of squamous epithelioma with secondary deposits in the ribs. Mr. Shattock remarked that secondary deposits in squamous cancer other than glands were almost unknown. This he thought might be explained mechanically, as the cells, owing to their large size, were filtered off in the glands, whereas the small cells of scirrhus not uncommonly had secondary deposits in bone.—Mr. SYMONDS related the case of a lady who had persistent pain in the neighbourhood of the left shoulder. She was under the care of Mr. Bryant, who found the coracoid process to be enlarged by a cylindrical-celled epithelioma. No primary growth could then be detected, but she afterwards died of carcinoma in the neighbourhood of the liver—probably of the gall-bladder.—Mr. BOWLBY said that bones generally escaped unless the growth was widely disseminated. Vertebræ were most commonly affected, and this was generally due to a local cause. He mentioned a case of recurrent scirrhus of the breast which had directly infected the ribs and thence the vertebræ. In connexion with the commonness of tumours of bone secondary to growths in the rectum, he mentioned two cases, one with secondary deposits in the femur and the other in the humerus. All would agree with Mr. Pitts as to the comparative innocence of growths in the rectum.—Mr. PITTS, in reply, thanked Mr. S. Paget for his statistics. It was wonderful the way in which spontaneous fractures of the humerus would unite. The fragility of the bones was generally due to secondary deposit, and he mentioned a skeleton in St. Thomas's Hospital museum in which nearly all the bones had been fractured and many were reunited, the union being by growth. The primary disease was scirrhus of the breast.

Mr. LUNN showed a Tumour of the Right Kidney, which was removed from the body of a man aged fifty-seven, who was admitted into St. Marylebone Infirmary on Sept. 18th, 1890. He stated that he had enteric fever thirty-six years ago. Had never had syphilis, gout, or a blow in the region of his kidneys, and had always enjoyed good health since his enteric fever until six years ago, when he had an attack of hæmaturia, the blood passing in clots, which at first was followed by clear urine. This lasted a few days, and then ceased for four or five months, when a recurrence took place. Whilst passing the clots he suffered from sharp shooting pains in his right side, down to his penis. No calculus was ever passed. Some months before admission his hæmaturia got more frequent, and his feet began to swell three weeks before admission. He had an attack of retention, and was obliged to have his urine drawn off at a hospital. On admission the patient was a strong and well built man, though pallid from the loss of blood. He had incontinence following retention. The urine was drawn off with a No. 10 silver catheter; it was acid and contained blood, as shown by microscopical examination. His tongue was moist.

and furred. Bowels open; pulse quick and small, arteries very rigid. Temperature 101·4° F. On examination of the abdomen a large tumour was found occupying the right renal region. It appeared fixed, and on deep pressure doubtful fluctuation was to be felt. An exploring needle was inserted into the swelling, but nothing was withdrawn. Two days after admission the patient passed some very large clots of blood by the urethra, which did not cause him much pain. The urine was obliged to be drawn off twice a day. Four days after admission the patient became very collapsed from loss of blood, he had several rigors, temperature 103·4°, after which he gradually sank and died on the sixth day following admission. At the post-mortem it was noted after opening the abdomen the liver appeared enlarged and pushed forwards by some tumour behind, which was slightly adherent. The liver was easily removed, and a large tumour was seen occupying the right kidney region, which was removed. Mr. Target had kindly examined the tumour and gave the following account:—The tumour had replaced the right kidney, and in shape resembled it. The mass weighed 4½ lb., and measured 7½ in. in length, 5 in. from side to side and 3½ in. in thickness. It had a definite fibrous capsule like that of a normal kidney. On longitudinal section it was found that the whole of the kidney structure had not disappeared, for at the upper extremity a small triangular area of normal renal tissue could be recognised. For the rest, the surface of the section had a spongy appearance, and was very soft, yielding an abundant juice on scraping. The pelvis of the kidney had for the most part disappeared, except at the upper end in the neighbourhood of the normal kidney structure, where one or two calyces remained and were much dilated. Their outlet, however, was blocked below. Examination of the hilum showed that the renal vein was completely filled with a plug of new growth, which had extended onwards towards its opening into the vena cava. The funnel-shaped portion of the pelvis was similarly blocked with growths and blood-clot. The growth did not appear to have perforated the capsule anywhere except at the hilum, and there were two bossy projections, which seemed to have commenced as intravenous extensions. The opposite kidney (left) weighed eight ounces, and contained one secondary deposit about the size of a walnut. Neither kidney showed amyloid changes. The urinary bladder was rather thickened but otherwise normal. The prostate enlarged. The liver weighed four pounds and a half, soft and friable, no deposits. The other viscera were normal. The heart was much dilated, and the left ventricle thickened; it weighed twenty-six ounces four drachms. Valves healthy. The growth appeared to be a soft form of carcinoma.—The PRESIDENT mentioned the rarity of primary carcinomata of the kidney, and the specimen was then referred to the Morbid Growths Committee.

Mr. J. J. CLARKE brought before the Society specimens of deformities in two new born children which were born at full time. In both cases there was good evidence of the conditions at the time of labour; the first case was brought to the author by Mr. Degui. The mother had previously attended at St. George's Hospital for pelvic pain, and after delivery Mr. Degui had found four fibroids, the quantity of liquor amnii in this case was small. The second specimen was given to the writer by Mr. H. S. Collier and was a monster. The mother had previously borne six healthy well-formed children; the labour was slow, and no liquor amnii had been present. The following points of interest were present in the deformities. In the first there were membranous fenestræ in the cranial bones, particularly in the parietal bones; in the second case there was complete encephalocele, the cranial bones being entirely absent. In the first there was a myelocele, and in the second a spina bifida occulta. In the second case, owing to the thighs having been pressed close to the groins, the descent of the testes had been interfered with, and in this case also there was a small caudal appendage. The deformities in these fœtuses he attributed to excessive pressure on the developing embryo due to the absence of liquor amnii.

The following card specimens were shown:—

Dr. B. W. HADDEN: (1) Carcinomatous Ulceration of Œsophagus opening into Aortic Arch and Trachea; (2) Patent Foramen Ovale in an Adult.

Mr. G. H. MAKINS: Spinal Meningocele Excised after Morton's Injection.

Dr. H. D. ROLLESTON: A Rupture of the Right Bronchus and Fracture of the First Rib.

Mr. S. G. SHATTOCK: Genu Recurvatum.

Dr. WYATT WINGRAVE: Lungs and Larynx from a case of Tuberculosis after Koch's Treatment. (Recent specimen.)

CLINICAL SOCIETY OF LONDON.

Modified Loreta's Operation for Stricture of the Pylorus.—Cases of Appendicitis.

AN ordinary meeting of this Society was held on Feb. 13th, the President, Sir Dyce Duckworth, in the chair.

Dr. HALE WHITE and Mr. ARBUTHNOT LANE related the details of a case of Stricture of the Pylorus following upon hydrochloric acid poisoning, in which a modified Loreta's operation was performed. The patient, a man aged forty-three, seven weeks before admission into Guy's Hospital swallowed some hydrochloric acid, whether intentionally or accidentally could not be made out. This was followed by a sharp attack presenting all the symptoms of acute irritant poisoning, but at the end of a few days he was better and seemed all right. At the end of a month severe hæmatemesis and pain set in, for which he was admitted seven weeks after he took the acid. He was wasted and weak, and had hæmatemesis and melæna. He was allowed an ounce of milk every hour, and in a few days appeared better, but a fortnight after admission it was obvious that the stomach was dilated and the vomiting returned. By careful dieting and washing out the stomach he improved considerably, but he again relapsed and became so weak and collapsed that death seemed close at hand. Three diagnoses were possible: either it was severe traumatic chronic gastritis, or there was ulceration with cicatrisation near the pylorus, or he had some tumour of the pylorus independent of the poisoning. On Oct. 6th Mr. Lane, having washed out the stomach and left the tube in as a guide, made an incision through the right rectus muscle and exposed the stomach, which was found to be a little dilated and much hypertrophied. At the pylorus and the stomach close to it was a firm, hard mass, not presenting any sign of malignant growth; it was so firm that it was thought that it would be impossible to dilate the pylorus rapidly, and so the stomach wall was attached to the edges of the abdominal wound, and the patient was fed with nutrient enemata for forty-eight hours, at the end of which time the stomach was opened and it was found that the pylorus would only admit a No. 4 catheter. Through this the patient was fed every two hours for three days; he seemed to be doing well, but he died suddenly seventy-six hours after the stomach was opened. The necropsy showed no cause for death; there was no peritonitis, no pulmonary embolism, nor was there any ulceration of the stomach to account for the pyloric obstruction, which existed only at the pylorus, the cardiac end being normal.—Mr. BOWREMAN JESSETT asked what made Mr. Lane perform the operation he did rather than do gastro-enterostomy; the latter was very easy of performance if done with Senn's plates, and it was likely to lead to permanent good in cases such as that described. He had performed gastro-enterostomy on five cases of cancer of the pylorus; three at the present time were as well as they could be, and were going about, and one of them had been done five months. He thought that in the case under discussion, if the patient had not died, there would have been great difficulty in maintaining the dilatation, and when the external wound had closed the stricture would have recurred. In a large number of Loreta's cases there had been recurrence of the stricture.—Mr. TREVES felt sure that most surgeons would endorse the treatment which had been carried out in the present case, and Loreta's operation was certainly better than the establishment of a gastro-enterostomy. With reference to recontraction, so far as he knew, only two cases of Loreta's operation had been done in this country; one had been performed by Mr. Hagyard of Hull, and the other by himself. The former of these, which had been done two years ago, was still well, and in his own case, which had also been done for two years, good health was likewise continuing. There was therefore in this country no evidence whatever of recontraction after the operation. In reading Loreta's account one could not help being struck with the enormous number of fibrous strictures that seemed to occur in Italy. He referred to a case of indefinite stomach trouble in a woman in whom that organ reached to

the groin. In order to discover the cause he opened the abdomen and the stomach, and hoped to find and dilate the pylorus; but in spite of twenty minutes' careful search he failed to discover the pyloric orifice. The woman appeared to be much benefited by the operation, but she came back again in nine months with a recurrence of her trouble. Loreta in his account said that he introduced two or three fingers into the pylorus in order to stretch it, but it should be remembered that that orifice normally had a circumference of only 16 millimetres, which was about equivalent to that of a sixpenny-piece. He concluded by referring to the remarkable improvement which took place in many patients simply after the opening of the peritoneal cavity, and he quoted cases of his own and one related by Mr. Annandale in support of this, which he believed to be only capable of explanation by an alteration of the intra-abdominal pressure.

Mr. HERBERT W. ALLINGHAM read notes of a case of Excision of the Vermiform Appendix. The patient, a boy aged fifteen, walked into the Great Northern Hospital, bending forward considerably and complaining of pain in the abdomen, said to have been due to a fall the day before. The previous history was that he had been quite well up to the time of the fall, but that three months back he was ill for a week with constipation. On admission the temperature was 100·6°, pulse rather feeble, tongue furred and a little dry; he complained of pain like knives cutting him in the lower part of the abdomen just below the umbilicus in the median line. Respiration was chiefly thoracic, but the lower part of the abdomen was partly used also. The abdomen below the umbilicus was tense and tender, but not to any great extent. There was no marked tenderness, fulness, or pain as over the region of the cæcum. The urine was drawn off by a catheter; it contained no blood, and was clear. He saw him about twenty-four hours after the accident, and, as his symptoms were obscure, desired to make an exploratory abdominal incision. This was made in the median line, as a careful examination of the abdomen while under chloroform revealed nothing. On opening the peritoneum pus welled up into the wound, and there were evidences of commencing peritonitis. The intestines were found not to be wounded, so he at once turned his attention to the cæcum and appendix vermiformis. When the appendix was found he observed it to be perforated by a ragged ulcer, and by it were two fæcal concretions. The appendix was closely adherent to the cæcum. The appendix was separated from the gut and ligatured with fine silk at its base and cut away. There were no evidences of previous inflammation about the cæcum. The abdomen was carefully washed out with warm water and a glass drainage-tube inserted, and the abdomen closed with silkworm-gut sutures. After a rather protracted convalescence the boy made a complete recovery, and had been at work four months. The boy, a specimen of appendix, and fæcal concretions were shown.

Mr. BLAND SUTTON read notes of four cases of Appendicitis, which he had successfully treated by appendectomy. Case 1: This patient, a man aged twenty-four, was under Dr. Sidney Coupland's care, with unmistakable signs of appendicitis. The cæcum was exposed by a lateral incision, and the appendix found lying adherent to its anterior aspect. The middle third of the appendix had sloughed, and an abscess, containing several ounces of pus, had formed in consequence. The appendix was removed, the stump sutured, and the peritoneal cavity flushed with warm water. The patient made an uninterrupted recovery.—Case 2: A groom, aged twenty-two, came under Mr. Sutton's care as a case of renal colic. The patient had had three attacks previously, the first, two years ago, diagnosed as "typhlitis," the second as "ruptured muscle," the third as renal colic, and the last remained undiagnosed. On careful examination it was clear that the disease was "relapsing appendicitis." Mr. Sutton exposed the cæcum by a lateral incision and found the appendix slightly adherent to the brim of the pelvis. Its lumen was obstructed. The appendix was cut off, the end carefully sutured, and the muscles drawn together by gut sutures, and the skin closed in the usual manner. The appendix below the stricture was filled with pus. The patient left the hospital convalescent on the fourteenth day.—Case 3: This patient was seen in consultation, and regarded by the practitioner in charge as a case of renal colic. After examination under chloroform Mr. Sutton came to the conclusion that the patient had a post-cæcal abscess, probably secondary to inflammation of a vertical retro-cæcal appendix. The parts were explored, and this diagnosis verified. The appendix was lying vertically behind the cæcum, and its middle third had sloughed. The pus was washed away, the stump of the appendix sutured, and a drainage tube inserted. Convalescence was interrupted by an attack of pleurisy, which suggested that the trouble in the tube was tubercular. Sections of the appendix were examined for tubercle and tubercle bacilli, but with negative results. The wound granulated and the patient left the hospital convalescent.—Case 4: A shoemaker, aged nineteen, was admitted under Dr. Finlay's care with typical signs of typhlitis. Under medical treatment he seemed to improve, but in the course of three weeks the presence of pus was clearly indicated. Mr. Sutton operated by a lateral incision and evacuated a large quantity of pus from the iliac fossa; the tip of the appendix had sloughed. As the rest of the appendix was dilated, it was cut off, its end closed by three gut sutures and the wound stuffed with iodoform gauze. On the eighth day a small fistula formed in the colon, allowing gas to escape. This, however, became closed as the wound cicatrised, and the patient left convalescent. Of these four cases, three were examples of acute and one an example of chronic relapsing appendicitis. The smooth and rapid convalescence in Case 2, in which the operation was performed for chronic appendicitis, formed a striking contrast to the risk, danger, and anxiety in the acute cases. All the cases illustrated the importance of early operation, which was simple enough to surgeons acquainted with the practical details of abdominal surgery. Case 3 suggested that an abscess secondary to appendicitis in a vertical retro-cæcal appendix might invade the peri-renal tissues and set up a peri-nephritic abscess. It was also curious that an abscess due to appendicitis, though very fetid, failed to conduct itself in an orthodox manner and indicate its presence by rigors. It must also be remembered that in many cases of typhlitis, which presented abdominal distension, pain, and the characteristic symptoms of infective peritonitis of sudden onset, these ominous signs were due to the escape of septic material from a latent abscess into the general peritoneal cavity. In such cases surgery could do little good.

Mr. ANDREW CLARK read notes of two cases of Typhlitic Abscess in which the vermiform appendix was removed. In the first the patient had general peritonitis when he was first seen, and, although he improved after the operation, he died of peritonitis on the fourth day. In the second case, where the attack was the third, the appendix was found bound down by adhesions and sloughing. It was removed, and the patient made a good recovery. He had had at present no recurrence of symptoms.

The PRESIDENT said that these cases of appendicitis presented great interest for every physician. Until the recent triumphs of abdominal surgery the majority of them used to die a miserable death. The more he saw of these cases the more he was convinced that it was the duty of the physician to transfer them without delay to the care of the surgeon; indeed, long delay was positively criminal. Yet it was very important to distinguish between cases of inflammation of the appendix and instances of trouble in the caput coli. The latter had a milder character and a less grave aspect, and it was a grave error to operate on them. Though a concretion was not always to blame, yet in the majority of cases one was to be found. It should, however, be remembered in connexion with this that the appendix normally contained some feculent material.—Mr. TREVES observed that Mr. Sutton's remark that one of the cases had "been treated by the methods ordinarily adopted by physicians" had called forth what was almost a smile on the faces of some of the audience. Yet it should be remembered that the "medical" treatment of typhlitis was successful in very many cases, and to treat all these cases surgically would only lead to disaster. The great majority of cases which had come into the London Hospital during the last ten years had recovered under medical measures, and there was no doubt that the epidemic of removal of appendices which had prevailed in some quarters had been extreme. If mere acuteness of symptoms were a guide to operation, many cases would be dealt with where no disease of the appendix would be found; on the other hand, he had known of cases where the patients had continued at their work till the bursting of the appendix. A very valuable means of distinguishing diseases of the appendix from trouble in the cæcum was examination per rectum, from which position it was often easy to distinguish the outline of the appendix.

Then, again, reflex pain in the testis or in the neck of the bladder should be looked for, the frequent apposition of the appendix to the ureter being remembered. Though there were cases where one should clamour for early interference, yet in many meddling would be disastrous. The use of needles for exploration was bad practice, and it had yet to be shown that operative interference before the fourth or fifth day was ever called for; it was certain that very few had died before the third or fourth day. Though it was only in 1887 he timidly made the proposal (which was not very cordially received) that in cases of relapsing typhlitis the appendix should be removed in the lucid interval, yet at the present time the number of appendices crowding the shelves of museums was enormous. Mr. Sutton seemed to have laid stress on the fact that a fourth attack would be fatal, but he knew of patients who had had twelve or even twenty attacks. Again, the same surgeon appeared to hold that the disease must either lead to operation or to death, but he had found a number of cases where destructive inflammation of the appendix had led to spontaneous cure. He repeated that the greatest care should be exercised in the selection of cases of relapsing typhlitis to be operated on. It might be found impossible to remove the appendix when cut down on; he himself had had to abandon the operation, and on one occasion had been more than an hour in effecting its removal. The ureter often lay curved and twisted in the region of the appendix, and he felt sure some day that a piece of that tube would be removed in mistake. He pointed out that the normal position of the appendix was behind the cæcum, that it frequently lay in a vertical axis, and trouble in it was a well-known cause of peri-nephritic abscess. He had known the pus spread up even to perforate the diaphragm. He observed that in Mr. Allingham's case the abdominal cicatrix had yielded. In spite of the greatest care and method, yielding of the cicatrix at the seat of operation was exceedingly common, and a method of suturing the abdominal wall to prevent this had yet to be demonstrated. The wisest place to make the abdominal incision was over the adhesions and not into the peritoneal cavity, and from there into the abscess. The former was a little more tedious, but was decidedly the better practice. Cases in which the appendix was found sloughing and lying in an abscess cavity were not those in which to attempt to carry out a plastic operation. After opening the abscess the less that was done the better, beyond putting in a drainage-tube. Certainly the results had been best where the interference had been least, and even if a fæcal fistula resulted, it should be remembered that in this region they frequently underwent a spontaneous cure. He agreed that in many cases approximation of the serous surfaces was impossible, and that where the operation was done in the absence of pus the stump should be fixed to the neighbouring peritoneum.—Dr. CAYLEY, as a physician, asked for guidance on one or two points. In the first of the two cases of Mr. Clark's, which had been under his care, general peritonitis had developed; and in the second case, in which the patient made a good recovery, it had already set in. Should the operation be done when general peritonitis was present, or how long should medical treatment be continued before operation was advised?—Dr. COUPLAND said it was quite refreshing to hear a surgeon approving of medical methods, for physicians had been taunted over and over again with persevering in the medical treatment of these cases. His own observations had led him to believe that trouble in the cæcum itself was extremely rare. He admitted that many cases recovered, but in those he thought the mischief was also in the appendix, and he knew of no sign or symptom which would differentiate one class from the other. He believed that in no case which had been operated on had the cæcum been found to be demonstrably affected, and pathologists had not met with the condition in the post-mortem room, except in cases of obstruction beyond the cæcum. Dr. Cayley had put the question strongly: What were the indications which justified the calling in of the surgeon? Where young subjects were admitted with acute peritonitis of short duration—"fulminating cases"—with no previous history of bowel trouble, such formerly commonly found their way to the post-mortem room; but now, in the probability of the case being one of perforated appendix, one would call in the surgeon. Such a diagnosis was made in a similar case in his own practice a short time ago, but on exploration the opinion proved to be an erroneous one. The patient was a lad aged nineteen, who had strained himself; symptoms of cæcal inflammation and of general peritonitis developed. The abdomen was opened and peritonitis found, especially in the pelvis, but there was no disease of the appendix and the patient made a good recovery. It was difficult also to decide what to do in cases where suppuration was supposed to be present. In the first case which Mr. Sutton had related, which had been under his care, he waited because he thought at first the case would prove a simple one; but as soon as he could make up his mind that suppuration was present he secured the aid of the surgeon. It was certain that in some cases suppuration would go on round the cæcum to an extreme degree without showing signs, and he had certainly seen cases of extensive abdominal suppuration where the source of the mischief had been an unsuspected inflamed appendix.

On the motion of Mr. LANGTON, seconded by Mr. PEARCE GOULD, the debate was adjourned till the next meeting.

MEDICAL SOCIETY OF LONDON.

Raynaud's Disease.—Addison's Disease.—Transposition of Viscera.—Cystic Bronchocele.—Fistula after Strangulated Inguinal Hernia.—Asthma in a Boy.—Simultaneous Amputation of both Breasts for Cancer.—Dexio-cardia and Bronchiectasis.—Situs Inversus Viscerum.—Treadler's Cramp.—Congenital Malformation of Heart.—Deficient Development of Abdominal Wall.—Trephining for Head Injury.—Lupus treated with Koch's Fluid.

A "CLINICAL EVENING" of this Society was held on Feb. 16th, the President, Mr. Knowsley Thornton, in the chair.

Dr. DE HAVILLAND HALL brought forward a case of Raynaud's disease in a labourer aged thirty-one, who was also suffering from pulmonary phthisis. He had an attack in December, 1889. The ears became blue, but not painful; the fingers and great toes were then affected. The present attack began in December of last year. The ears were very painful; hands and feet not affected. Skin of the helix of both ears had necrosed. No pain since the patient had kept the ears covered up and taken five minims of tincture of opium thrice daily.

Dr. HALL next showed an instance of Addison's disease in a man aged thirty-five, who was a night attendant at a cabstand. The pigmentation was extremely well marked in the lips, buccal mucous membrane and tongue, the colour being bluish black. There was also increased amount of pigment in the skin of the face about the areolæ, and in the axillæ. On the trunk and extremities there was a pigmented rash. Vomiting commenced seven weeks ago, but had ceased the last three weeks. The patient had angular curvature of the spine, the result of a fall in childhood.

Dr. HALL also exhibited a man, a porter, aged forty-six, whom he had shown to the Society on Feb. 7th, 1876, as an example of Complete Transposition of Viscera. Since then the heart had suffered considerably from the effects of acute rheumatism. There was a systolic murmur, heard loudest in second left interspace, and conducted to the sterno-clavicular articulation; a diastolic murmur, heard loudest over the sixth right costal cartilage, and conducted towards apex. There was a systolic murmur at apex, conducted into axilla and faintly audible behind. The apex was three inches below right nipple, and one inch to the right. The liver dulness could be detected on the left side.

Dr. HALL lastly showed a woman aged fifty-three in whom enormous masses of what appeared to be Thyroid Gland were to be seen on both sides of the neck, with greatly dilated veins over the chest. Twenty-one years ago a cyst on the right side of the neck was tapped and a seton put in; there was great increase in the growth afterwards. She has had no treatment for the throat since. Except some little difficulty in swallowing fluids, and some dyspeptic symptoms, she complained of nothing abnormal.

Mr. STEPHEN PAGET exhibited a man aged twenty-four on whom he had operated for Strangulated Left Inguinal Hernia. Finding the gut gangrenous, he fastened it outside the abdomen and opened it at once. The man did well, the bowel skinning over and receding, till there remained only a minute fistula from which a drop of mucus exuded once or twice a week. Mr. Paget urged that it was not justifiable in such cases to perform primary resection or to adopt Helferich's suggestion of making an anastomosis

above the gangrenous bowel.—Mr. H. ALLINGHAM had met with a similar case in a woman; he opened the gut freely and fixed it at the abdominal wall. Several sloughs came away, leaving a fistulous opening, which at the present time had entirely closed.—Mr. BALLANCE, referring to the question of the treatment of the gut in cases where it was found gangrenous in strangulated hernia, agreed that no attempt at resection was justifiable at the time of the first operation for the relief of the symptoms, and complete resection attempted at that time was almost invariably fatal. If it were at all desirable, it might be done subsequently; but the less disturbance there was at first the better, a free incision into the gut and one or two stitches being quite enough.

Dr. HERRINGHAM showed a boy aged ten who was the subject of Asthma. When he was three years of age he had suffered from scarlatina, and after that he had pneumonia and his feet swelled. Dyspnœa also developed, which had since become more frequent and severe, and was worse in summer. The attacks were typical ones of a spasmodic asthma, ending with a severe coughing fit, and bringing up a quantity of muco-pus. There was no sign of bronchiectasis, though the boy was suffering from emphysema and bronchitis. He had found that the compound lobelia powder, when burnt and inhaled as the dyspnœa came on, completely relieved the attacks.—Dr. HALL had seen great benefit follow the use of the powder referred to.—Dr. HERRINGHAM replied in the negative to Mr. SPENCER WATSON'S inquiry if there were any obstruction in the nostrils. Mr. Watson related a case in which a woman had had asthma for eighteen years, who also had several nasal polypi together with turbinated hypertrophy. These nasal troubles being removed, she was completely relieved and had remained free from symptoms for more than a year.—Mr. BALLANCE stated that he himself had suffered from only two attacks of asthma in his life, and both had been induced by the presence of cats in the house.

Mr. EDMUND OWEN showed a married woman, aged forty-nine years, who came into St. Mary's Hospital last October with Scirrhus of each Breast. On neither side was the skin adherent, or the breast attached to the pectoralis. She had had a child ten years ago, but there had been no trouble with either breast, nor was there any history of injury. Two years before her admission she had first noticed a hard lump growing in the right breast, and a year and a half later a similar growth on the left side. The growths, though of no great size, were extremely hard and nodular. Under an anæsthetic, Mr. Owen removed the right breast, whilst his house surgeon, Mr. W. J. Foster, amputated the left; each axilla was also cleared of enlarged glands. The patient showed no particular shock after the operation; the wounds healed by first intention, and her present condition was eminently satisfactory. It was formerly taught that operative treatment was contra-indicated when both breasts were the seat of malignant disease, and in the last edition of "Erichsen's Surgery" this statement recurred. To this, however, Mr. Owen took exception. In the early stages cancer was a local disease. The fact of one breast only being almost invariably the seat of the disease was evidence of its local nature. When both breasts were affected, the condition might be regarded as accidental. It by no means followed that the bilateral occurrence indicated constitutional implication; and the fact of both breasts being scirrhous might actually be a double reason for advising prompt operative interference.—Mr. BALLANCE had seen a woman nearly eighty years of age suffering from cancer of both breasts and of the axilla, of ten years' duration. In spite of this she had not lost flesh or strength, and she illustrated the truth that in old people the cancerous disease did not kill the patient.—The PRESIDENT referred to two cases on which he had operated in 1889, and in both he had removed the breast and glands. They had both recently returned to him with recurrence in the opposite breast, the recurrence in one being in the mammary scar, and in the other in the axillary glands. In one of them he had removed the opposite breast. In the only case of symmetrical disease of both breasts which he had seen the patient, an old lady, died of shock from removal of both the organs.—Mr. OWEN, in reply, said there had been no accident to the breasts and no eczema about the nipples. He agreed that an opposite breast should be removed for recurrence, though this, again, was against a general surgical principle which had been laid down, but which, he felt sure, was wrong.

Dr EWART and Mr. BENNETT showed a case of Dexiocardia without transposition of other viscera, and bronchiectasis in which pulmonary incision and resection of the right ninth rib had been done for the latter. The patient was a groom aged twenty-eight, who had suffered from cough since his infancy, and latterly had expectorated much pus. Three years ago he suffered from hæmoptysis, and last year from influenza and bronchitis. In July he had high fever with pneumonic signs at the right base, followed next day by the development of pneumonia on the left side also. The heart on examination was found to be out of position, and at the right base later there was pectoriloquy and ægophony. The base of the right lung was explored, and a drainage-tube left in for a week without evacuating any pus. At the present time the pulmonary symptoms remained the same. He was unable, from the examination he had made, and from the history of the case, to decide whether the displacement of the heart was congenital or due to the traction exerted by the contracting right lung. He referred to another case at present under his care which presented similar symptoms.

Dr. EWART also showed a woman, aged forty-eight, who was the subject of complete Situs Inversus Viscerum. The abdominal organs had been mapped out by percussion. The patient was right-handed, and complained of nothing but palpitation and dyspepsia. He had met with another similar case in a child, and had also seen a case of situs inversus of the heart alone associated with malformation of that organ.

Sir HUGH BEEVOR pointed out that the pleurisy and bronchiectasis had both been of long duration, and, as the right side was little or no smaller than the left, the heart had probably been dragged over by the contracting lung.

Dr. RIVERS showed for Dr. Hughlings Jackson a case of Treadler's Cramp occurring in a man who, after having been a hand-loom weaver for thirty years, began to make mistakes in his work owing to defective treadling with the right leg (the one principally used); later the right leg became lame, and after using the left leg for some years this became weak, rendering him unable to follow his occupation. The spasm occurred at the commencement of the flexion movement which accompanied the upward motion of the treadle, the extension or downward movement being well performed. The spasm was of the combined movement of the hip and knee, each joint being moved freely by itself; the difficulty was referred by the patient to the gluteal region, and both the gluteal and hamstring muscles on the right side showed decided diminution of faradaic and galvanic irritability. The right leg was held stiffly in walking, the case then agreeing with other occupation spasms in which large movements were concerned, and in which the affected limb was more or less generally disabled.

Sir HUGH BEEVOR brought forward a case of Malformation of the Heart for diagnosis. The patient, a man aged thirty-three, had a loud systolic murmur; the point of maximum intensity was at the left fifth cartilage close to the sternum, whence the sound faded away in an equal degree towards base and apex, in a less degree towards the epigastrium and across the sternum. He said he could never run like other boys, and his lips and fingers gave evidence of long standing feebleness of circulation. There was no evidence of regurgitation into the veins of the neck. These symptoms were best explained on the presumption that there was a small communication between the two ventricles, due to a congenital deficiency in the septum of the wall of either ventricle.

Sir HUGH BEEVOR also showed a case of Defective Development of the Abdominal Wall. The diaphragm was inactive; there was a musical systolic murmur audible only over the sternum opposite four ribs. On throwing the muscles of the abdomen into action a swelling the size of the fist appeared high in either loin; it was tympanitic, and the condition had existed since infancy. On deep inspiration the recession of the abdominal wall was marked; the liver dulness had its upper limit, however, slightly depressed.

Mr. HERBERT ALLINGHAM showed the case of a man who in 1865 had a severe accident to his head on the left side, and was insensible for ten days. Since that time on and off he had suffered from giddiness and head symptoms, with loss of memory and a sense of pressure over the frontal region. In February of last year Mr. Allingham trephined the skull over the seat of the old injury. The bone was greatly in-

creased in thickness, and the dura mater was also thickened, but the brain appeared normal. The patient was better for a time, but of late the sensations of giddiness had returned, with a sense of pressure over the other side of the skull.

Mr. SHEILD showed a man of stout appearance who had a huge Loose Body in the Right Knee-joint. It was larger than a walnut, had so increased in size as to give the patient no inconvenience, and it was therefore decided not to recommend operative treatment.

Dr. C. M. CAMPBELL showed two cases of Lupus which had been treated by injections with Koch's fluid. The first was a female aged twenty-three, in whom lupus appeared at the age of seven on the left cheek, and had been repeatedly treated locally. Fifteen injections had been given, the dose being gradually increased up to a decigramme. Forty-sixty days had elapsed since the commencement of the treatment; the patient had ceased to react, but the lupus, although somewhat attenuated, was certainly not eradicated. The second case occurred in a married woman aged forty-five, in whom the lupus had existed for twenty-eight years, involving the nose, fauces, and ary-epiglottic folds. Fourteen inoculations were given. The throat lesions appeared to have been nearly, if not quite, eradicated; the nose was distinctly improved, but the disease was not extirpated.

OBSTETRICAL SOCIETY OF LONDON.

The President's Address.

THE annual meeting of this Society was held on Feb. 4th, Dr. A. L. Galabin, President, in the chair.

The report of the auditors of the accounts of the treasurer for the year ending Dec. 31st, 1890, was read. It was proposed by Dr. Champneys and seconded by Dr. Gow, and carried, that the report be received, adopted, and published in the Transactions. The report of the honorary librarian was read and adopted. The report of the chairman of the Board for the Examination of Midwives was read and adopted. The President laid upon the table the new volume of the Transactions.

The PRESIDENT, in his address, congratulated the Society upon a prosperous year. The most notable event had been the removal of the Society to its new premises in Hanover-square. The losses by death, though in one sense heavy, had not been great in numbers. William Butler Young, M.R.C.S., L.S.A., had practised in Reading; he was a man of high principle and great uprightness of character; he died on March 22nd, 1890, at the age of sixty-eight. William Pollard, F.R.C.S. Eng., L.S.A., was a descendant of Sir Hugh Pollard; he had practised in Torquay, where he was respected and beloved both socially and professionally; he died on March 29th, 1890, at the age of seventy. G. Sirignano, M.D., practised in Naples. He died suddenly on March 7th, 1890. Frantz Christian Faze, M.D., was born in 1806. In 1850 he went to Christiania, where he became Professor of Midwifery in the University. He wrote several works on obstetric subjects. He was physician to King Oscar I., as well as to his son Charles XV. He was Knight of the Swedish North Star in Diamonds. He was fond of the English, and travelled much in England, Scotland, and Ireland. He was elected an Honorary Fellow of the Obstetrical Society in 1863. He died, at the age of eighty-three, on May 9th, 1890. Montagu H. C. Palmer, M.R.C.S., practised in Newbury. Besides being a successful practitioner, he was an excellent antiquarian, a good natural historian, and a botanist. He was Mayor of the borough. He died, at the age of thirty-nine, on May 22nd, 1890. James Matthews Duncan, M.D., was born in April, 1826. He studied in Edinburgh and on the Continent. He was assistant to Sir James Simpson, and was the first person ever rendered insensible by chloroform, Simpson and Keith subjecting themselves to the same experiment on the same night. He rapidly established a reputation as a great teacher in obstetrics. His published works soon became widely known. In 1862 he was elected an Honorary Fellow of the Obstetrical Society. A similar honour was conferred upon him in later years by a large number of societies on the Continent and in America. On the death of Sir James Simpson in 1870, it was generally expected that Dr. Matthews Duncan, who had already a European reputation as one of the greatest obstetricians of any time, would succeed to the chair of midwifery in the University of Edinburgh. The choice of the electors, however, fell upon Dr. A. R. Simpson. This event had doubtless much to do with the result that he accepted the post of obstetric physician and lecturer on midwifery at St. Bartholomew's Hospital, when it was offered to him on the retirement of Dr. Greenhalgh in 1877. The debates of our Society gained an added interest from his presence and constant participation, and he occupied the chair as President in the years 1881 and 1882. In 1860 he married Miss Jane Hart Hotchkiss, of Castlewick, Dumfriesshire. He had in all thirteen children. Mrs. Matthews Duncan and five sons and four daughters survive him. In the spring of last year his health began to fail. He suffered from gouty eczema and from attacks of angina. He died on Sept. 1st at Baden Baden. He was buried at East Finchley Cemetery; most of the leaders of the profession who were not out of town at the time were present, and Sir Richard Quain was deputed to represent the Queen. John Armstrong, M.D., M.R.C.S., L.S.A., was born in 1805. At first he practised in Sligo, and afterwards in Gravesend. In 1873 he retired from practice and went to live at Green-street-green, Dartford, Kent. He was held in great respect by his fellow-townsmen, and was highly esteemed by his professional brethren. He died on Nov. 20th, 1890. The President then entered upon the subject of the midwives' education and registration, and a discussion followed which has been already reported.—Dr. JOHN WILLIAMS moved a vote of thanks to the President, which was seconded by Dr. POTTER, and carried unanimously. During the meeting the officers for the ensuing year were elected.

The following specimens were shown:—

Mr. ALBAN DORAN (for Mr. ERNEST HART): Ancient Gold Ornament from Crete, representing a woman in labour in the upright position.

Dr. HANDFIELD JONES: Ovary from a case of Hæmorrhage after an Accident.

Dr. RUTHERFORD: Uterus removed by Vaginal Hysterectomy.

Dr. WHEATON: (1) An Ovary containing Three Dermoid Cysts; (2) Early Tubercular Disease of the Uterus.

Mr. MALCOLM: The Uterine Appendages, showing small multilocular ovarian cysts.

Dr. HERMAN: (1) Case of Submucous Fibroid, presenting at os uteri ten days after delivery; (2) a case of Cancer of the Uterine Body, illustrating the difficulty of diagnosing between this disease and senile endometritis.

Dr. HERBERT SPENCER: Congenital Diaphragmatic Hernia.

Dr. J. PHILLIPS: Blighted Ovum, with fleshy condition of the decidua.

HUNTERIAN SOCIETY.

A MEETING was held on Jan. 14th, Dr. Stephen Mackenzie, President, in the chair.

Hydronephrosis.—Tubercular Lesions in Alcoholism.

Mr. C. J. SYMONDS read a paper entitled "Three Cases of Hydronephrosis and their Treatment." Case 1 was that of a girl aged seventeen, with a tumour in the right loin. She was aspirated four times within three months, nine pints in all being withdrawn. She remained well, but came three years after with a very large tumour. The kidney was laid open and drained, no calculus was found, but the ureter was greatly dilated. The permanent sinus was a cause of distress, and some months later the kidney was removed. The operation proved very simple, the scar tissue being readily dissected off, and the organ enucleated; recovery was good. In Case 2 a housemaid had a recurring renal tumour, filling and emptying of its own accord. The kidney was incised, no calculus being found; but a dilated pelvis and the orifice of the ureter contracted. The third case was that of a boy aged nine. As regards the treatment of hydronephrosis, spontaneous evacuation cures some cases, and may be assisted by posture or manipulation. Aspiration proves curative in a few, but need not be repeated more than three or four times. If the canal is contracted, and cannot be dilated, remove the kidney. The existence of a sinus did not in these cases increase the difficulty of performing nephrectomy. The abdominal method of operating offers advantages in some cases; the condition of the other kidney can be ascertained, and a calculus in the ureter detected and removed. — Mr. R. CLEMENT LUCAS having made some remarks, Dr. NEWTON

PITT referred to some specimens, showing how the disposition of vessels along the pelvis of the kidney and the ureter may give rise to a kink in the latter, and thus cause hydronephrosis.

Dr. G. NEWTON PITT read some notes on the post-mortem appearances in Chronic Alcoholism. In thirty cases in which phthisis was present, a dense fibroid pigmented change was almost invariably present in some portion of the lung, far more frequently than in other cases of phthisis; grey or yellow tubercles were less common, and caseous bronchopneumonia was quite the exception. The prevalence of these fibroids, and to a certain extent reparative changes, appear to be associated with the taking of a large amount of alcohol. *Primâ facie*, the chronic dyspepsia and irregular habits, the lack of food, and the gross improvidence and recklessness of these patients would lead us to expect that their mortality from phthisis would be high. The Registrar-General's reports, however, show that the mortality from phthisis of publicans and others whose occupations expose them to special temptations to drink is rather below than above the average. But acute tuberculosis and pneumonia are very liable to occur in such patients, and the tubercular nature of the disease may often be overlooked during life. It is noteworthy that about three-fourths of the cases of alcoholic neuritis, and about a fifth of those of alcoholic cirrhosis of the liver, are found post mortem to have also tubercular lesions. The association of such lesions with cirrhosis is seldom insisted upon, but is of importance. Out of 110 cases of alcoholic cirrhosis, in twenty-three there were tubercular lesions, phthisis most commonly, but in some acute tuberculosis or tubercular peritonitis. Dr. Pitt's conclusions were that tubercular lesions in the lung in alcoholic subjects generally take a fibroid form, and that tubercular lesions are not infrequently associated with alcoholic neuritis and hepatic cirrhosis.—Drs. F. J. Smith, Turner, and Gilbert, and the President discussed the paper, and referred to cases illustrating and confirming the conclusions arrived at.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

THE ordinary meeting was held on Wednesday, Jan. 21st, Mr. C. H. White, President, in the chair.

Tuberculous Meat.—Dr. BOOBBYER exhibited the lungs, heart, liver, spleen, and some lymphatic glands from a cow which had recently been seized, slaughtered, and destroyed by the town authorities on its exposure for sale in the fat stock market of the borough. He pointed out the very extensive infiltration of tuberculous matter and comparatively small amount of necrotic action. All the internal organs, excepting the heart, were more or less invaded. The left lung was affected in almost every part with miliary tubercle, and the liver was thickly studded with deposits of various sizes, some as large as oranges. He showed that the physical signs and special symptoms in so pronounced a case as this almost necessarily implied a guilty knowledge on the part of the vendors, although the magistrates before whom the case was taken declined to accept this view. The general emaciation, arched back, retracted abdomen, and staring coat, together with the frequent cough, jerky respiration from pleuritic adhesions, and continuous diarrhœa, were indications the import of which could not well be mistaken. Dr. Boobbyer briefly drew attention to the experiments of Toussaint, Bouley, Chauveau, Cornil, Arloing, Nocard, Peuch, Gerlach, Johul, and others, with the flesh or juices of tuberculous animals upon others in a previously healthy condition, both natural ingestion and artificial injection being used, which all went to show that great risk of infection attended the use of the bodies of tuberculous animals as food for the healthy. Dr. Boobbyer described the attitude of the home and some Continental Governments and local authorities with respect to the important question of how far tuberculous disease in animals should be considered as rendering them unfit for food, and said that the Sheriff of Glasgow probably erred, if he erred at all, on the right side when he gave it as his decision, after hearing a large amount of evidence, that the simple presence of the disease, however slight its development, was in itself a disqualification.

Mr. BELCHER showed a case of Erythema Iris in a man aged forty.

Notes on Cancer of the Breast.—Mr. HATHERLY read notes of some cases of cancer of the breast which had occurred in his practice. He accepted unreservedly the doctrine of a pre-cancerous or local stage of cancer, and dwelt upon the difficulty of recognising with any certainty the exact period when a non-malignant growth might become malignant. The microscope even was of little assistance, as the cell degeneration characteristic of cancer is not a sudden but a gradual process, the same specimen often showing cells varying within wide limits as to the degree of degeneration. He referred to Mr. Jonathan Hutchinson's doctrine, that cancer was not due to any special material introduced from without, but that it was simply a modification of that which occurred in chronic inflammation. Mr. Hatherly was strongly in favour of early operation, even in cases where there might be some doubts as to the diagnosis; in doubtful cases the patient should have the benefit of the doubt, otherwise the most favourable period for operation would be allowed to slip, and an early return of the disease would be highly probable. He advocated free removal, and thought too much attention was paid to union by first intention. In one case in which he had amputated the breast in a rather advanced case, union took place by first intention, but there was ominous induration of the scar within a fortnight after the wound had healed. A second operation was performed, and the whole scar was freely excised; the edges of the wound were nearly four inches apart; healing by granulation was rapid, and the patient had no return of the disease for several months. He attached the greatest importance to any brawny condition of the skin, and thought it even of more unfavourable import than induration of the axillary glands. He gave notes of some interesting cases in support of his view of the necessity of free excision, and thought that in the large majority of cases, however little advanced they were, the most promising course was to remove the whole gland. He thought that in dealing with malignant disease conservative surgery was a mistake. — The PRESIDENT directed attention to the importance of excising cancerous growths freely, and condemned cheese-paring with a view to obtain rapid healing and neat cicatrix.—Dr. CATTLE quoted a case in which a tumour, after twenty years of imperceptible growth, had assumed malignant characters and caused the patient's death. He thought such changes in the character of new growths occurred at a period of life when there was a general tendency to degenerative changes.—Messrs. BLURTON and WRAY also spoke.

Specimen.—Dr. CATTLE showed for Mr. Chicken a Cystic Sarcoma of Testis removed by castration from a man aged twenty. The diagnosis from hydrocele, hæmatocele, and encephaloid was discussed. Dr. Cattle showed a microscopical section of the tumour.

Reviews and Notices of Books.

National Health. Abridged from "The Health of Nations." A Review of the Works of Sir Edwin Chadwick, K.C.B. By B. W. RICHARDSON, M.D., F.R.S. Pp. 320. London: Longmans and Co. 1890.

THE author informs us in the preface that this volume was prepared to meet the request on the part of the public for an abridged and less expensive edition of his original work, and may be considered an abridgment of the most popular and practical portions of it. Introductory to the part relating to National Health is a biographical sketch of Sir Edwin Chadwick. Born at Lysaght, near Manchester, in 1800, he received his education entirely at private schools and by private tutors. After passing some time in an attorney's office as a pupil, he enrolled himself as a student of the Inner Temple, and was called to the bar in November, 1830. While carrying on his studies he supplied reports to the *Morning Herald* and the *London Review*, and contributed to the latter two papers in 1829, one on Preventive Police and the other on Public Charities in France. In 1828 he

wrote for the *Westminster Review* an essay on Life Assurance. He resided for some time with Jeremy Bentham, to assist him in the compilation of his Administrative Code. In 1832, upon the formation of the Poor-law Commission, Mr. Chadwick became one of the assistant commissioners, and in 1833 was appointed a member of the Royal Commission to inquire into the subject of the employment of children. The Report of this Commission, which was drafted chiefly by Mr. Chadwick, led to the appointment of Government inspectors, and eventually to the Ten Hours Act, and in it he brought forward the subject of the "half-time system of education." In 1834 Mr. Chadwick was installed as secretary to the new Poor-law Board, and continued to hold that appointment till 1846. In 1838 the Board, on his recommendation, instituted a Medical Commission to inquire into the causes of a severe epidemic of fever in Whitechapel, which brought to light the disgraceful character of the water-supply, and the large extent to which it contributed to the disease and death-rate of the metropolis. He was also instrumental in inducing the Government to introduce the Bill for the Registration of Births, Marriages, and Deaths, which led to the formation of the office of Registrar-General. In the same year he was nominated one of the members of the commission to inquire into the best means of establishing an efficient constabulary force in the counties of England and Wales, which reported in the following year. In 1839 (by a misprint stated 1829) the Poor-law Commissioners were ordered to institute an inquiry into the health of the labouring classes of England and Wales, and they instructed their assistant commissioners to report upon such parts of the subject as came under their observation. At the request of the commissioners, from the papers thus obtained and from other information sent to them, Mr. Chadwick prepared the report which was presented to Parliament in 1842. In the following year, as a supplement to it he drew up a report on the subject of interment in towns. In 1845, consequent upon an inquiry into alleged abuses and illegal practices in the administration of the Poor Law, at which Mr. Chadwick gave important evidence, the Poor-law Board was abolished, and his career as chief secretary ended. In 1847 he was appointed member of a commission to inquire into the sanitary condition of the metropolis, and in 1848 a commissioner of the first Board of Health, a post which he held till 1854, when the Board was merged into the Local Government Board. In 1848 he was created a Companion of the Order of the Bath (incorrectly stated Commander), and in the same year was appointed one of the members of the Consolidated Commission of Sewers. The abolition of the Board of Health terminated his official public life, from which he retired with a pension of a thousand pounds a year. After his retirement into private life he continued to work zealously in the cause of sanitation and of reform in the public service. In the latter he strongly urged the adoption of competitive examinations as tests of qualification for all primary appointments in the various Government departments. In 1877 he presided at Stafford over the Congress of the Sanitary Institute, and in 1881 at Brighton over the Public Health Section of the Sanitary Congress. In 1885 he was elected President of the Association of Public Sanitary Inspectors, and in 1889, on attaining his ninetieth year, was entertained at a banquet arranged by the Association. At the same time he was promoted to the rank of Knight Commander of the Order of the Bath.

The biography is interesting as the career of an energetic worker in the interests of the public, but it has the fault of being entirely one-sided. While Dr. Richardson has given full credit for the undoubtedly valuable service rendered by Mr. Chadwick in his official capacity, he has omitted all reference to any shortcomings which may have arisen, in a great measure, from his energetic temperament, and he has in some instances claimed for him an undue amount of credit. As regards the first of these points, he has overlooked entirely the opinion expressed by Lord John Russell that as a member of the Board of Health he had been an injudicious administrator. Sir John Simon, in a highly appreciative notice of Mr. Chadwick's rare abilities as an original investigator in matters of social pathology, and as one having absolute rectitude of intention towards the public in every line of conduct which he followed, states that he "seems not to have been gifted with the quality [of judicial patience] in degree sufficient for official success. The faults which were imputed to him in his official relations—a tendency to build overmuch on foundation of small experience, a liability to one-sidedness on questions of science and administration, a failure to listen duly to dissentient voices, a deceptive trust in central dictation as the short and ready road to success, and a too despotic tone in affairs of local and personal interest—all these, so far as they were Mr. Chadwick's faults, may be generalised as faults of over-eagerness." He subsequently says: "Whatever may have been Mr. Chadwick's administrative unsuccess, and however severely the unsuccess may be attributed to errors of judgment on his part, nothing therein lessens by a tittle the value of what he had previously achieved." As regards the second point, Dr. Richardson claims that by a paper on the "huge mortality of our troops in India" Mr. Chadwick led the way to the formation of the Indian Sanitary Commission. We believe this to be quite a mistake, for it was really an outcome of the Barrack and Hospital Commission appointed in accordance with the recommendation of the Commission on the Health of the Army, over which Mr. Sidney Herbert so ably presided. Again Dr. Richardson says that in 1871 Mr. Chadwick suggested a plan for the drainage of Cawnpore, but we leave it to those practically acquainted with the subject to say how much or how little value should be attached to such a plan drawn up by a man who had never been in India.

The volume consists apparently of extracts from the published works of Sir E. Chadwick "without comment." These are grouped under the heads of: (1) Health in the Dwelling House—Domestic Health; (2) Health in the School—Educational Health; (3) the Health of the Community—Social Health; (4) Health in the Future—Progressive Health. Some of the views expressed in the last section, progressive health, are very imaginative, especially his health remedies for Irish discontent and his ventilation from cloudland. He suggests to M. Eiffel that if he "will provide in his high place a shaft by means of which he can supply Paris with breath from cloudland, his temporary idea will become permanent, and he will be known for generations to come as the celestial ventilator, the bringer of the pure air of the skies into the dwelling-places of men." These extracts are interesting as an exposition of Sir E. Chadwick's views on many important subjects relating to the health, comfort, and well-being of the people, and also as showing the gradual progress which has been made on these subjects during the last half century. Another point struck us in our study of the book—the entire absence of any acknowledgment of assistance or coöperation in any of Sir E. Chadwick's works. That he must have received much valuable assistance is undeniable, but where is the acknowledgment? The contrast in this respect with at least as great a sanitarian, Sir John Simon, is noticeable. Entertaining as we do a high appreciation of the services of Sir E. Chadwick, we cannot but regret so unsatisfactory an omission on his part.

OUR LIBRARY TABLE.

A System of Oral Surgery. Being a Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, and associate parts. By JAMES E. GARRETSON, A.M., M.D., D.D.S., President of the Medico-Chirurgical Hospital &c. Illustrated with numerous woodcuts and steel plates. Fifth Edition, thoroughly revised, with Additions. Philadelphia: J. B. Lippincott Co. 1890.—As the title of this work shows, the writer deals with a rather wide range of subjects. The anatomy of the head is first considered, with special reference to the muscles, vessels, nerves, and glands. The teeth come in for a large share of attention, and their diseases and irregularities, and the treatment required, are discussed in detail. But, in addition to all this, not only are diseases and injuries of the jaws and antrum described, but also those of the tonsil, tongue, pharynx, larynx, nose, lips, and cheek are dealt with. The author has managed to write more than 1300 pages of letterpress, and this is the most noteworthy fact about the book—its size. Our readers will appreciate the value of Dr. Garretson's teaching if we give them a few selections in his own words: "Study of Cancer: We pass to the study of cancer. Every tumour is a cancer that is not something else." "Ability to diagnose is proportional with knowledge. What an eye sees it sees. With not less certainty does judgment understand what it comprehends. Understanding is resultant of experience. Thought and experience are one. . . . To comprehend is to be able to say exactly what a thing is." With extracts of this kind we might go on almost indefinitely. As this is the fifth edition of this work we suppose Americans appreciate it. We think we can confidently state that Englishmen will not.

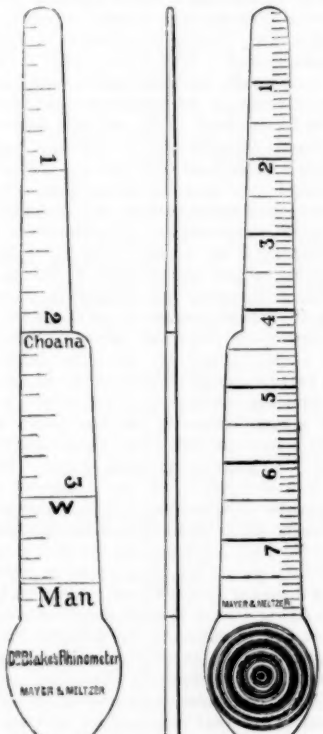
Law and Practice of Lunacy. By H. M. R. POPE, M.A. Second Edition by J. H. BOOME and V. DE S. FOWKE, Barristers-at-law. London: Sweet & Maxwell, Limited.—This book contains in a very accessible form a large body of matter relating to the law of lunacy, and will be found of the greatest service to those who are entrusted, especially in a professional capacity, with the management and custody of the property of persons mentally unsound. As to those parts of the law which are of especial interest to medical practitioners, it is, however, somewhat deficient. In the first edition an appendix gave a synopsis of the law relating to institutions for the treatment of the insane and their management, but this has been omitted from the present work; and as the health rather than the property of a lunatic forms the distinctive care of the medical practitioner, our readers will for the most part find this book less adapted to their purposes than some other treatises upon this branch of law. By readers whose interests lie within the range of the work as now defined, the work in its present form will be valuable.

In the *Veterinarian* for this month the most important contribution is a correspondence, taken from the *North British Agriculturist*, between Professors Williams and McCall on the question of "Are Blisters Hurtful or Beneficial?" Professor Williams, whose wide clinical experience gives him the right to speak with some confidence, declares against blisters; whilst Professor McCall gives his opinion that blisters are useful, though he does not approve the use of cantharidine. The latter promises a lecture "on the action and beneficial effects of counter-irritation in chest affections." Notes on influenza, strangles, and sand cracks, with long extracts from the medical journals bearing on Koch's treatment and an account of the meetings of the veterinary societies are given. At the meeting of the Border Counties Veterinary Medical Society, Dr. Fleming gave an interesting paper on Influenza in Horses. The first, a catarrhal form, he says appears to be very like the broncho-pneumonia of human beings; the second is an intensely febrile form in which the lungs are extensively involved, a condition which, he thinks, might be termed "epizootic pneumonia of equines," in which there appears to be infiltration of the air vessels, and in which also a septic or gangrenous condition of the lungs may supervene. A third, like the second, also a sporadic form, appears to affect the skin specially, being, in fact, a kind of erysipelas.

New Invention.

THE RHINOMETER: A NASO-PHARYNGEAL SOUND.

THIS simple little instrument consists of a tapering spatula of flexible metal. Readily introduced into the nostril, it diagnoses rapidly the various obstructive diseases of the naso-pharynx. Measuring about four inches in length, and only half an inch in width, it can be carried easily in the waistcoat pocket. In these days of countless and cumbrous appliances, portability is in itself no mean recommendation; besides this, the nasal sound is always at hand. The method of use is as follows. Ten minutes after spraying



the carefully cleansed nostrils with ten grains of boric acid, five grains of chloride of sodium, twenty-five grains of muriate of cocaine, to one ounce of camphor water, the rough part of the sound is grasped lightly between the finger and thumb. The smaller end is then passed very gently along the floor of the suspected nostril, carefully preserving the horizontal position. A rounded shoulder indicates when the choana is reached. It is well to keep the sound parallel with the vomer, but not touching it. The septum readily bleeds, even in health, and, owing to its free nerve supply, it is exquisitely sensitive. When the posterior

nares are passed and the sound enters the pharynx its course should be turned outwards to the Eustachian orifice. If at this point its passage be obstructed and the tip return stained with blood, then Eustachian adenoids are probably present. An engraved line indicates when the posterior pharyngeal wall ought to be reached; this point varies, of course, with age and with sex. The smaller end of the instrument is now raised by depressing the handle. A doughy sense of resistance suggests the presence of adenoid hypertrophy of the pharyngeal tonsil at the roof of the vault. The existence of a neoplasm here is further confirmed by blood stains on the tip of the probe. The point should be withdrawn very slowly along the cribriform plate in order to detect the presence of deviating septum, fibroma, hypertrophic rhinitis, polypus, or septal bridge. Owing to the taper edge of the sound, it serves not only to diagnose abnormal pressure on the Vidian branches on the naso-palatine (nerve of Cotunnius) or on the olfactory filaments, but it gives a rough approximation to the amount of pressure exerted. Besides its more ostensible use, this handy probe, being divided into small parts of an inch and of a centimetre, provides for strict and accurate measurements, so often needed by the surgeon; when reversed, it makes a capital tongue depressor, and is in addition a convenient paper cutter. The use of this instrument, it will be quite understood, is not intended to supplant nasal illumination, but to supplement it, and to sift out the cases that call for visual examination.

Berkeley Mansions, Hyde-park, W. EDWARD BLAKE, M.D.

THE ORIGIN OF SPECIES OF DISEASE.

To the Editors of THE LANCET.

SIRS,—Many recent events have contributed to revive interest in the old, yet ever new, question of the origin of specific disease. Among these the addresses of Koch and Lister at Berlin last summer on the biological and practical aspects respectively of the bacterial hypothesis, the more recent announcement of the "cure of consumption," with all the collateral questions of inoculability, immunity, vulnerability, and the rest, and the brilliant display of the morphology, culture, and products of the tubercle bacillus at the Pathological Society last week, may be reckoned as of the first importance.

It is becoming increasingly evident that any approach to a satisfactory solution of the enigma propounded by the bacteriological sphinx requires a knowledge of the physical and biological sciences, which it has been fashionable of late to regard as superfluous acquisition to a medical man. It is not less evident that, as with the sphinx of Thebes, many reputations and lives are likely to be sacrificed in the process of solution. Two deductions, however, appear to be coming to the front amid the tangled skein of researches innumerable, and a perfect maze of fanciful theorising, based upon the slenderest substratum of fact, or none at all, or, worse still, upon erroneous observation, often dominated by a pre-existent idea. One of these deductions is that bacteria are not outside the pale of evolution, as seems to have been imagined by the specifically minded, but that among them, even more markedly than among higher and more fixed species, the adaptation of internal to external relations is powerfully at work, and correspondingly that a relatively slight variation of the medium or soil may profoundly influence their morphological characteristics. Ten years ago, in your columns,[1] I ventured to plead for a recognition of evolution of morbid species as modifying the rigid specificity preached by Sydenham, and later by Bretonneau and Trousseau, and urged that the "common ancestry of specific disease once recognised would do much to remove the hard-and-fast line so often drawn between disease and disease in text-books and dissertations, but of which nature knows nothing." Your columns, as well as the whole trend of modern pathology during the past decade, bear fruitful witness to the truth of this view; the doctrine of the plasticity of the germ in obedience to environment which is now to the fore is corollary to this contention.

The other and possibly more important truth which is immanent in most of the best of modern work in the field of the pathology of infective disease is that, after all, the morphology of the micro-organism—nay, its presence—may be but subsidiary to the chemico-physical conditions which pre-exist, or which it may be a part cause in initiating. It hardly needed the demonstration of the Prussian-blue test to feel convinced that in the toxic products of the tubercle bacillus one was dealing with derivatives of the deadly cyano group. Here we touch the big topic of chemical constitution and physiological action, and the question arises how far the *materies morbi* of so-called bacterial diseases is not chemical after all, its modification the result of slight variation of molecular structure, its virulence varying with intra-molecular condensation. Beyond all this the question irresistibly forces itself upon the mind, How far is the *rôle* of the bacterium merely that of an unorganised ferment akin to the curious contact actions of platinum and palladium, obscured rather than explained by being called catalytic? May not the effect of the bacterium be relegated to the relatively humble part of providing a ready initiative for a chemical explosion which might possibly, but less readily, have been effected without it? In this case the relation of the bacillus to the morbid process would be no more than, but as marked as, the relation of a lighted lucifer to the explosion of a barrel of gunpowder. The tendency appears to be to regard it as probable that an alkaloid rather than an albumose is the effective proximate cause in such case, and that its amount and presumably its nature is conditioned by the pabulum at hand. In either case we see that here, as it has been elsewhere remarked, the atomically inert nitrogen appears to supply the deadly pivot on which the lethal quality turns. Anyway, it would appear that the evolution of specific disease is a notion consistent with either the bacterial or chemical hypothesis. As I contended in 1884, "for panspermists to reconcile their views with this, it is only necessary for them to believe that organisms of an indifferent nature are capable by cultivation on suitable soil of taking on noxious and specifically noxious properties. For those who hold the chemico-physical theory, it is only necessary to regard the process of evolution of disease after the fashion of the construction of a complex organic compound, perhaps of an alkaloidal nature."

The question, however, cannot long remain where it is. The relation of bacteria to morbid processes effected by chemical products of their activity leads inevitably to a reconsideration of the supposed settled question of abiogenesis. The possibilities of environment are not exhausted by glycerine agar-agar in a test tube, nor even by alkali-peptone broth gelatine on glass plates. The problem of the origin of life is not solved by a reference to a remote epoch during the cooling down process, which bears a suspicious resemblance to the fairy tale explanation of "Once upon a time, in a country by the sea"; neither can a leaf torn from the Mosaic cosmogony suffice any longer (apart from its "gratuitous malevolence") to support a special creation theory for specific disease; nor can a belief in the predestination of bacteria to the service of man, a relic of the old anthropocentric notions, excuse us from studying the lowly cocci and bacilli in the light of their own life histories apart from their fortuitous and most unfortunate contact with mankind.

I am, Sirs, yours faithfully,

W. J. COLLINS, M.S.Lond., F.R.C.S. Eng.

Albert-terrace, Regent's-park, Feb. 9th, 1891.

[1] THE LANCET, May 14th, 1881.

HUNTERIAN SOCIETY.—The annual general meeting was held at the London Institution on Feb. 11th, when the following officers were elected:—President (second year): Stephen Mackenzie, M.D. Vice-Presidents: E. G. Gilbert, M.D., F. Charlewood Turner, M.D., C. J. Symonds, M.S., and R. G. Tatham. Treasurer: F. Charlewood Turner, M.D. Librarian: Arthur T. Davies, M.B. Orator for 1892: C. J. Symonds, M.S. Secretaries: John Poland and R. Hingston Fox, M.D. Council: S. H. Appleford, M.D., T. Lloyd Brown, G. A. Carpenter, M.B., J. S. E. Cotman, T. Rowing Fendick, J. Langton Hewer, M.D., T. Mark Hovell, R. Clement Lucas, B.S., T. Horrocks Oppenshaw, M.S., G. Newton Pitt, M.D., W. Percy Reynolds, and F. J. Smith, M.B. Dr. Fletcher Beach then delivered the annual oration, an abstract of which is published in another part of our present impression. The Fellows and friends dined together at the Holborn Restaurant on Friday, the 13th inst.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 21, 1891.

ELEMENTARY SCHOOLS AND THE SPREAD OF DISEASE.

THE issue by the Medical Officer of the Local Government Board at the close of last year of a new Memorandum[1] on the closing of elementary schools, or the exclusion therefrom of children, with the object of preventing the spread of infectious diseases, deserves notice by public health and school officials from several points of view. These two sets of officers might, in one sense, be regarded as antagonistic; the one has the prevention of disease mainly before him, the other labours for the promotion of education, and he feels that any limitation in the number of school attendances for health purposes tends to some extent to defeat the progress of education. It is true that, according to the Education Code, allowance is made, as regards the pecuniary grant, for any properly authorised school closure; but nothing really makes up for the failures at examinations which such closures involve; and as regards mere exclusion of particular scholars, it has not been found practicable to make any corresponding arrangements as to the pecuniary grant. For these reasons there is a natural disinclination on the part of school authorities to be interfered with, unless, indeed, they are made to understand the necessity of the action contemplated. On the other hand, medical officers of health are coming to understand more and more the important part which is played in the diffusion of certain of the infectious fevers by the aggregation of children in elementary schools, and they are naturally anxious to act with discretion, and yet with promptitude, in respect of school operations. Having regard to these conflicting interests, it is most important that all action taken should be well considered, and that it should be effected strictly in accordance with the provisions dealing with this subject. Those provisions have in recent years undergone some modifications, and for this reason alone there will be advantage in recalling the powers which sanitary authorities possess in the matter, and the principles by which they should be guided in acting upon them.

In the first place, we would point out that the medical officer of health has not, as is commonly supposed, the actual power to interfere with any school processes. The sanitary authority are alone empowered to interfere in this matter; but at the same time it is the duty of the health officer to advise them when to act and how to act, and he should always be prepared to set out the grounds on which his advice has been based. This is the more important because school authorities have the power of appealing to the Education Department against any interference with their school attendances, and such appeals generally involve the matter being referred to the Local Government Board, with a view to a report being obtained from the health officer. Indeed, the latter is now required, whenever a school is closed on account of infectious disease, to report the circumstances to the Central Board.

But perhaps the most important part of the memorandum issued relates to the principles that should guide a medical officer of health in advising whether actual closure of a school should be resorted to, or whether mere exclusion of scholars from infected houses or localities will suffice; both these methods being authorised provided the order of the sanitary authority distinctly specifies the period during which they are to take effect. The exclusion of particular scholars is, of course, a much less severe measure than actual closure, and it is one that should be attempted more often than it is, provided the early attacks of infectious diseases are heard of. The compulsory notification system, now so largely resorted to, should materially aid in securing such success, from the process of exclusion, as to render complete closure unnecessary. And, even when disease is actually epidemic, Dr. BUCHANAN urges that closure, which involves a serious interference with educational work, should not be resorted to as a mere matter of routine. The medical officer of health advising it should be satisfied that minor measures will not suffice, and that some clear prospect of good is likely to arise from the step he advocates. During actual epidemics, for example, it may be that children will have a greater opportunity for mingling with infectious convalescents if they are out at play all day in the streets and courts of crowded neighbourhoods than if they were kept at school during the greater part of the day. Besides which there are epidemics in which school attendance plays but an unimportant part in the distribution of the infection, and in such cases it would be unjustifiable to impose on the school managers restrictions that would gravely affect their school attendances. On the other hand, where prompt exclusion of particular scholars has been followed either by no lessening or by actual increase of the epidemic, there would often appear grounds for closing a school; and even though the period to which the exclusion relates has not expired, a second order may properly be issued requiring complete cessation of school attendances. In some instances, when disease has broken out in a single school, sanitary authorities have been advised to close all the schools in the district. This is a step that can rarely be justified, and its adoption, except on grounds that would bear strict investigation, tends to bring this power of interference with school operations into discredit.

On the whole, we rather gather from the tenour of the Memorandum that school closure is not unfrequently advised without sufficient grounds, that exclusion of scholars from particular houses or localities is not resorted to with sufficient promptitude to ensure success and render closure altogether unnecessary, and that when disease spreads in consequence of tardiness to adopt reasonable measures of restriction, school closure is at times resorted to when it can do but little good. And even as to the results, conclusions are not infrequently drawn very hurriedly. Diphtheria, for example, is spreading in September and October; it continues through November into December, and the schools are suddenly closed until

[1] Memorandum prepared in the Medical Department of the Local Government Board on the Closure &c. of Elementary Schools. Eyre and Spottiswoode, 1d. 1890.

the end of January. The disease then practically ceases—a result which is held to justify the former proceedings. But it is forgotten that diphtheria is largely influenced by season, and that the prevalence in question might, apart from the school closure, have been expected to follow the precise course which it did follow. From these and other points of view the Memorandum deserves the careful attention of medical officers of health, and of others who are concerned in the control and management of our elementary schools.

THE schemes for the reconstitution of the University of London, following on the lines of the Royal Commission, embrace two distinct questions—the best means for the promotion of higher education in London, and the necessity of granting pass degrees in medicine on equitable terms to London medical students. In the scheme of June, 1890, the clauses dealing with the former question were provisionally accepted, with some reservations, by the Teaching Colleges which have been agitating for a local metropolitan University comparable to the Scotch Universities or to the Victoria University, because a large amount of power was given therein to a Standing Committee of the Senate for the Faculties of Arts and Science in connexion with the London Constituent Colleges in those faculties. On this Committee these Colleges were largely represented, and it was specially formed to deal with the regulations concerning the courses of study and the examinations for pass degrees in arts and science at those colleges, and with the extension of University teaching in London. The regulations concerning the pass M.B. degree, however, were not accepted by the Royal Colleges, although the Fellows o the Royal College of Physicians were more nearly inclined to agree with them than was the Council of the Royal College of Surgeons. In this new scheme of February, 1891, the position is exactly reversed. The two Royal Colleges have now accepted the scheme because of the alterations in the clauses dealing with the medical degrees, whilst the professors of the Teaching Colleges unanimously decided, at full meetings held simultaneously at University and King's Colleges on Monday last, to reject it as not meeting their requirements, and as altering the position given to them in the former scheme; and we suppose the Councils of the two Colleges will, at their respective meetings to-day (Friday) and on Friday next, come to the same conclusion. The reasons for this double change of front are easily seen if the clauses dealing with the two questions are considered. The Teaching Colleges maintain their demand for a local metropolitan University as recommended in the strongest terms by the Royal Commissioners, or for one in which they can exercise such powers as practically will make it a Teaching University, and they are given instead a certain, but in their opinion inadequate, influence in a large heterogeneous body centralised in Burlington-gardens. The Royal Colleges, on the other hand, practically find themselves in the position of being able to grant a pass M.B. degree under the ægis of the Senate of the University of London, and over which the Senate has reserved only a minimum of control. The examinations, except those for matriculation and in preliminary science, are now placed under the direction of a committee, equally composed of nominees of the Senate and of nominees of the Royal Colleges, and as the first cannot but largely consist of Fellows of one or other of the Royal Colleges, into their hands the control of medical training and of the examination standard for the pass M.B. degree will necessarily fall. These bodies also arrange the curricula and define the examinations for their combined diplomas at the Conjoint Examining Board, so that they will exercise an almost complete monopoly—except so far as the L.S.A. is concerned—over every London pass medical student's education and career. Would the University of Edinburgh so abdicate its functions in favour of the Scotch corporations? Have not objections to many details in the present system of examinations at the Conjoint Board in England been unavailingly pointed out by independent visitors, and is not the scale of fees charged by the Board a very excessive one? The new scheme of the Senate of the University will, if adopted, take away the only means by which any effort at reforming the examinations of these corporations could have been effectually exerted. A fair pass M.B. degree must, as the Royal Commissioners report, be accessible to London medical students, but it would be preferable if it were one really granted by a university authority, and not one actually given by the corporations under the sanction and label of a university.

A further question arises as to the terms on which this degree will be given should the scheme be passed. It must be clearly understood that it is only the pass M.B. degree which is under consideration. The Standing Committee in Medicine of the Senate will fix the honours examinations for the M.B. degree, and determine the conditions of the M.D. degree, so that the Colleges will have no power over the M.B. (honours) or the M.D. degree. Moreover, the difficult matriculation and preliminary scientific examinations will (except in the case of matriculated students at constituent colleges) be also under the sole control of examiners appointed by the Senate, and we hear of no intention to mitigate their severity. Either, then, the Royal Colleges hope to whittle down these examinations, or the proffered boon to the average London medical student will prove a delusion. Let anyone examine the questions set in experimental physics at the Preliminary Scientific M.B. Examination for many years past, and he will soon see that they are so high in range as to be beyond the capacity of any average medical student without a prolonged first-class mathematic training, and offer a test of knowledge which he is hardly likely to need in his future medical career. Again, if the pass medical aspirant wishes to call himself "Dr.," against such a use of a mere M.B. degree he is studiously admonished by the authorities of the University. Will they relax this admonition in favour of the new graduates? or will these be confronted anew by that old, ever-recurring difficulty? Will the fees be fixed on so excessive a scale as to invite an unfavourable comparison with the fees for degrees in the other faculties, in the Scotch and provincial universities, and even in the other medical corporations, as we fear will be the case if the Royal Colleges have as much success in further influencing the Senate as they seem already to have obtained? The inclusion of the provincial colleges affects the medical corporations and schools of London but little,

for only one provincial Fellow out of a standing committee of nineteen is suggested. The provincial medical schools should have a fair representation or none at all. But the arrangements for the provincial colleges in Arts and Medicine are so elaborate as to seem to us absolutely unworkable. How are these to have a due representation when four nominees of their principals or chief officers and but four nominees of the provincial faculties, acting conjointly—i.e., from such centres as Birmingham, Newcastle, Leeds, Sheffield, Manchester, Liverpool, Nottingham, Cardiff, Bristol, Bangor, and Aberystwith, for these will all be constituent colleges,—are allotted to them out of a Senate of fifty-two? How can a standing committee, which must meet in London, regulate the courses of study and the examinations in Arts and Science best adapted for such different institutions? Is a peripatetic examiner in every subject to attend at each College in turn, and act as assessor to the professor in that subject? for the Senate proposes to make such an arrangement with these Colleges, jointly or separately, for such examinations. To other examiners, or to the same, must be given the task of conducting the examinations in London on this plan, and also those fixed for non-collegiate students. Will the syllabuses of the courses of instruction in these different Colleges, which have to be approved by the Senate, be made similar or be allowed to differ? In the one case, any chance of local development would be destroyed, and in the other every pass B.A. and B.Sc. degree would have a different meaning and value. How can the provincial faculties and provincial boards of studies from so many centres be made fairly representative, or be assembled sufficiently often to make their work of any value? These are the practical points suggested by the new clauses in the Charter, which those who drafted it—who surely could have had no experience in University teaching or acquaintance with modern collegiate aims and thoughts—seem to have overlooked.

The scheme would appear to aim at centralising all London and provincial arts and science teaching under the control of Burlington Gardens, and to relegate the routine but practical work of examining for a pass medical degree to the Examination Hall on the Embankment.

IT may be remembered that on July 2nd, 1889, WILLIAM KERR was tried before Mr. Justice STEPHEN at the Carlisle Assizes, convicted of the crime of having murdered a single woman named SEBRA TROUGHEAR, aged about fifty, and sentenced to death. This sentence was commuted to penal servitude for life, and subsequently to a term of fourteen years. The offence was what is called "constructive murder"—i.e., killing not with intent to murder, but through the commission of an unlawful assault. The convict was charged with having ravished the deceased, who through his violence was caused to vomit, and was suffocated by the impaction of food in the larynx. We have carefully studied copies of the depositions made before the coroner and the magistrates, together with a report of the evidence given at the trial, and also a quantity of correspondence derived from various sources. It has never before been our lot, in studying the history of a trial for the capital offence, to meet with evidence so equivocal, such one-sided interpretation of the facts, and with a defence so lamentably lacking in support that might and ought to have been forthcoming.

On June 2nd, 1889, at 11.30 P.M., the dead body of SEBRA TROUGHEAR was discovered by two men lying in the supine position, distant only 160 yards from a roadside inn. The woman had been on a visit to some friends and was returning to her home. Beside the body, piled in a heap, and in the following order, were her umbrella, dress skirt, tippet, false hair, and hat. Her handkerchief was lying near. There had been a heavy thunderstorm the same day, which had washed the roads, and left the gutter surface, over which the legs of the woman lay, in a state extremely favourable to receive impressions of objects. In fact, casts of such marks were actually taken, which represented the ribbed pattern of the deceased's stockings, together with other marks; but—and this is deserving of great weight—nothing that corresponded with the boots worn by the accused, nor impressions of his knees or toes as at first surmised. A quarter of an hour previously the same men had met KERR walking in the direction of his home and away from the place where the body lay. It was proved in evidence that KERR must have taken about forty-five minutes to traverse the distance of 557 yards from the place where he was previously seen, and that no other person was noticed to pass by the same road. It was further shown that the deceased would arrive at the place where her body was found at a time when KERR would have met her. Here was strong presumptive evidence that if a crime was committed KERR was the agent of it. There can be little doubt, however, that he was intoxicated; for not only was he seen to be "staggering," but one witness saw him fall down in the road. On the police being fetched, the corpse was removed on a ladder to a neighbouring inn, where on the following day Dr. BARNES and Dr. MCLAREN made an examination. They found that death had resulted from asphyxia. Hypostatic congestion was strongly marked. On the front of the abdomen was a small abrasion, which did not appear to have bled. "Blood was seen smeared over the genitals, and fæces had escaped. Distinct marks of bruising were seen just within the genital passage, and these showed recent effusion of blood. A small tear was noticed near the right side of the orifice, and a larger tear, about three-quarters of an inch long, a little further in. There were several small effusions of blood in the lining of the passage beyond the tear. The uterus contained no blood. There were no seminal stains. There was a bruise of the scalp and temporal muscle on one side, which might have been caused by a blow or fall. The heart and kidneys were diseased. There was mud on the thighs. There were slight blood-stains on the chemise and handkerchief, and vomited matter on several articles of dress. There was a smear resembling blood on the face, but no wound." It has been suggested that the extravasations and rents in the vagina were caused by manipulation on removing the pelvic organs, but it would be manifestly unfair to Drs. BARNES and MCLAREN to suppose that they would commit such a blunder. On the same day the prisoner was examined. He had slight abrasions on both cheeks. Several spots of blood were found on his vest and trousers, and the fly of the latter had a blood-smear on it. His clothes were smeared

with mud, and adherent to the mud on the knees were red woollen fibres. There was vomited matter on the waistcoat, back of the coat, and back of the coat collar. There were no seminal stains on the prisoner's clothes, or blood or marks of injury upon the genital organs.

Two questions present themselves for inquiry—(1) Had the woman been ravished? (2) If so, did KERR commit the offence? In our opinion the former theory is quite unwarranted by the evidence. Assuming sexual intercourse to have happened, there is nothing to show it was not by consent. If it did take place it is by no means certain that it was at the spot where the body was found, since such marks as would be expected on the ground were absent. Against the theory of rape, too, was (1) the orderly disposition of the woman's clothes by the side of the body, (2) the proximity to a dwelling-house, (3) the fact that no one heard sounds of alarm, (4) the absence of seminal stains, (5) the absence of signs of rough handling of the woman's clothes. We cannot subscribe to the argument of the medical witnesses that the injuries to the vagina were greater than could have been inflicted had there been consent to intercourse with a drunken man. In a London hospital museum is a preparation showing complete rupture of the vaginal wall caused by the act of intercourse with an adult. The bruise on TROUGHEAR'S head might easily be accounted for by a fall; moreover, there were no stones about, and KERR was not seen to be carrying a stick.

It is surprising to us that this, by far the most assailable part of the case for the prosecution, should have been made so little of by the defence. Many of the marks found upon the body and clothes of the prisoner were certainly consistent with his innocence. The vomit on his vest and coat was not sufficient to prove that it came from the deceased. The spots of blood on his vest and trousers may have been derived from blood-spitting. Whilst in custody he remarked, "I have been spitting blood again," and in the basin a police officer noticed streaks of blood. The mud on his clothes and the abrasions on his cheeks may be accounted for by his falling down, which he was seen to do. The red woollen fibres on the knees of his trousers may have got there from another source than the petticoat of the deceased. It was not tendered in evidence, but it has since been alleged that on the night in question his trousers were thrown across the same rail as his sister's red flannel petticoat. Besides, there are so many ways in which so common a fabric as red flannel may have come in contact with his trousers. Also the death took place on June 2nd, and these woollen fibres were not detected until June 25th, although an examination of the mud on the trousers had been made in the interval. It was suggested to the jury that the little blood on the woman's face might have come from the abrasions on KERR'S cheek, but surely this is very problematical. It was said that in the mud on the knees of his trousers were fragments of beech leaves and scales of beech leaves, and that the mud was different in character from that on the ground where he was seen to fall. This may be so. But if he fell at one place he might well have fallen at another, so this counts for little where so grave an issue is involved. We cannot but believe that had the prisoner been assisted by skilled medical evidence, and had all the facts and their possible interpretations been placed before the judge and jury, there would have been a more favourable charge and a different verdict. Exception must be taken to Mr. Justice STEPHEN'S remark, that walking in the cool of the evening would tend to dissipate the effects of drink; the result is often just the reverse. It is better that twenty guilty persons should escape punishment than that an innocent man should suffer. We commend the above comments to the notice of the Home Secretary, in the hope that he may find the crime of which KERR lies convicted was "not proven."

THE report of the proceedings on the occasion of a deputation to the Lord President of the Council on the Midwives' Registration Bill will be read with interest by all parties in this controversy. They may be surprised at the keen interest, in a Bill affecting England alone, of Irish officials and representatives of Irish Corporations or Societies; they may question the authority of Dr. RENTOUL to tell a high member of Her Majesty's Government that many medical practitioners are ready to go to a confinement for 7*s.* 6*d.*; they may be struck with the fact that Dr. GILBART SMITH was able to anticipate the report of a committee of the Royal College of Physicians, which at that moment had scarcely met, and to convey to the Lord President that it would content itself with opposing this Bill; and they may be struck by some of the arguments advanced by other members of the deputation. But, nevertheless, they will be interested to see how differently things that are perfectly obvious can be stated, and how they seem for the moment to have impressed an able and practical statesman. The deputation received an assurance from Lord CRANBROOK—of what has been well known to our readers for some time—that the Government would not support the present Bill. It is under no particular obligation to do so. It is not a Government Bill. It is drafted with no degree of care. It takes no precautions against admitting the unfittest persons now posing as midwives to the Register. The Lord President spoke of "pressure of immediate legislation." Of all suffering creatures lying-in women are the most patient, and the least likely to bring any pressure to bear on Parliament; it is the last thing they will think of, and the last place they will appeal to. There will have to be a good many more verdicts against midwives by coroners' juries before pressure on Parliament from those immediately affected is enough to move that body, which is so absorbed in other questions. These facts do not seem to us a reason, however, for acquiescing in the present state of things. Few persons of any experience can share the perfect satisfaction which Dr. DRAGE expressed to the Lord President when he said that for his part he knew of no necessity for legislation. It requires little imagination and less experience to understand what evils must arise for the want of a little sound training in ordinary cases and in the management of ordinary labour. It remains to be seen how far the deputation, whose speeches to the Lord President we report to-day, represent the profession. They were not altogether harmonious, and the Lord President might well feel "somewhat puzzled." Mr. CROLY, representing the Royal College

of Surgeons of Ireland, said that the Council of his College would be quite agreeable to accept the Bill if adequate guarantees of education and competency were given. Dr. MACNAUGHTON JONES was in favour of legislation for securing "a high type of obstetric nurse," which seems to us very much the same thing as "a midwife." Dr. JACOB properly dreaded the wholesale admission of thousands of ignorant women to a Register. None of these deliverances are opposed to reasonable legislation to stop incompetent midwives from practising. It would be strange indeed if the chief spokesmen for Ireland, the country of SINCLAIR and HAUGHTON, who have done so much to educate midwives, had spoken otherwise. Dr. RENTOUL seemed to be the most "puzzling" speaker to the Lord President. Whereas the other speakers were proud of Irish examinations of midwives, "on the other hand, Dr. RENTOUL was rather for ending the midwives than for mending them. He said that unless they became qualified in medicine and surgery, as well as in midwifery, they should not be taken any notice of, and I understand from that that he would rather things were left as they were." It is very unlikely that things will remain as they are. It will be a pretty business if Dr. RENTOUL succeeds in getting us a race of inferior female practitioners, educated in *medicine*, *surgery*, and *midwifery*. Such a class of persons would indeed be a veritable blow at the medical profession. If these are Dr. RENTOUL'S views, we deny that they represent those of the profession any more than his remark that medical men were ready to attend midwifery for 7*s*. 6*d*. Neither the health of medical men nor their self-respect can be maintained on such fees. The lowest Poor-law fee for midwifery is 10*s*. 6*d*. Does Dr. RENTOUL mean to drag the profession lower than this? The Lord President will receive the thanks of the profession for promising not to support the present Bill. But, in the name of the profession, we protest without delay against a Midwives' Bill that contemplates creating a race of something more than midwives for attendance on ordinary cases of labour among the poorer classes.

THE recent correspondence between Sir ANDREW CLARK, President of the Royal College of Physicians, and the Secretary of State for War, must indubitably prove of great interest to all concerned. There is no need to enter into any detailed history of all the occurrences out of which has arisen the present unsatisfactory state of feeling on the part of army medical officers in regard to their present position and privileges. There would appear to have been a dissatisfaction among them for years past regarding rank, even when relative rank was believed to have some value. Whether the abolition of the latter were the cause or not of all that has since taken place, it certainly was the occasion of an almost universal feeling among medical officers that they had been deprived of any rank they had, except departmental. There were other grievances no doubt, some recent, some old; but the main, the corner-stone grievance, was that of rank, without the possession of which medical officers alleged that they had neither, on the one hand, an assured position, nor, on the other, the authority and independence to which they were entitled, and which they deemed essential for the satisfactory performance of the numerous and mixed duties and responsibilities that have of late years been imposed upon them.

Mr. STANHOPE appointed a committee of investigation, and that being so it was naturally felt that he should carry out its recommendations. But a good deal has happened since then. Once started, the subject was bound to grow and develop. Medical officers were led to study the constitution and organisation of the medical services of other nations, and to consider well that of their own in relation to the army generally. In this way they came to appreciate and understand what was really meant by army rank as distinguished from departmental rank, and military titles or professional ones. The able representation of Sir ANDREW CLARK to the War Minister embodies their present views.

The medical officers now not unjustly contend that things have vastly changed of late years, and that only those who have had working experience of the service know where the shoe pinches. In order to avert future discontent, and to place them in a proper position, they maintain that substantive army rank is necessary for the medical officer, and that the Medical Staff Corps should be welded into one body like the Royal Engineers, the officers being lieutenants, captains, majors, &c., of that corps, with limited command. It is obvious that so long as the medical service forms part of the army machine, its officers should occupy a well-defined, recognised, and assured position, and that they should not have to be asserting themselves or be compelled from time to time to fight for precedence, rights, or allowances. If army rank be necessary, we certainly do not see why the principle of command it carries with it cannot be limited in character, and restricted, as at present, to the sphere of the medical officer's responsibilities and functions. We are quite sure that no army medical officer would desire to exercise command outside the limit of his own duties. The terms used in a medical officer's commission define his position and powers in this respect.

But rank is one thing, title is another. We confess that we have always regarded the retention of some professional title as right and consistent with proper self-respect, to say nothing of the practical utility of distinguishing a medical officer in some way from other officers. The substitution of purely military titles for professional ones, so that the latter become altogether submerged and lost, does not appear a dignified course to be adopted by University graduates in Medicine or Fellows of a Royal College of Surgeons, for instance. We do not think, however, that Mr. STANHOPE'S concessions as they stand will prove satisfactory to the medical service, seeing that he grants them the composite titles recommended by Lord CAMPERDOWN'S Commission, but does not touch the question of substantive rank, which is, in the opinion of the medical officers, the pivot of the whole subject.

Although it may be true that to reduce the term of foreign service to what it was would be productive of increased expense, it must be remembered, on the other hand, that the sickness and mortality among medical officers are already unduly large; and extended foreign

service means increased inefficiency from sickness and invaliding, with attendant monetary loss to the State.

We are glad to observe that, with respect to the conditions of sick leave, Mr. STANHOPE is willing to meet the medical officers' wishes.

Annotations.

"Ne quid nimis."

VITAL STATISTICS OF IMPROVED DWELLINGS.

DR. NEWSHOLME, the medical officer of health for Brighton, read before the Royal Statistical Society, on Tuesday morning last, an interesting and useful paper on the Vital Statistics of Peabody Buildings, and other Artisans and Labourers' Block Dwellings. The paper was mainly based upon the careful statistics that have been collected in recent years by the secretary of the Peabody Trust Fund, and which had been placed at the disposal of Dr. Newsholme for the purposes of his paper. The Peabody dwellings have had for some years a practically stationary population somewhat exceeding 20,000 persons. The population and the ages of the inmates of these buildings are annually enumerated by the superintendents, and the returns of deaths occurring among this population are specially obtained from the local registrars. Dr. Newsholme has thus been able not only to calculate the recorded rates of mortality from all causes and from certain classes of diseases, but also to correct these rates for the disturbing influence of the abnormal age-distribution of the resident population. The paper was well received by the Society, and was very generally acknowledged to be a good example of careful and sound statistical work. It shows that, notwithstanding the high birth-rate, the age-distribution of the Peabody population is less favourable to the rate of mortality than that of all London; that notwithstanding the fact that the population is a working class population, and that the population shows a high proportion of density per acre, the mean death-rate during the twelve years ending with 1885 was 2 per 1000 below the mean London rate during the same period; that the mean rate in the Peabody buildings is at each age group below the mean rate for the whole of London, excepting only the age groups 0 to 5, and 15 to 35 years; that the rate of infant mortality (the proportion of deaths under one year to births) is considerably lower in the Peabody buildings than in the whole of London, whereas among children aged between one and five years the rate in the Peabody buildings shows a marked excess; that the excess at these ages is mainly due to the high rate of mortality from the diseases more immediately due to direct infection, notably scarlet fever, diphtheria, whooping-cough, and measles; and lastly, that what has been called Dr. Farr's law of density—that is, the existence of a constant relation between increasing density and increasing mortality—receives no corroboration from the results of Dr. Newsholme's analysis of the mortality of the Peabody buildings. An interesting discussion followed the reading of the paper, in which the President (Dr. Mouat), Sir Rawson Rawson, Dr. Adler, Dr. Sykes, Dr. Longstaff, Mr. Lovett, Mr. Noel A. Humphreys, and others took part. While the statistical merit of the paper was fully and freely admitted, it was asserted by some of the speakers that the very abnormal character of the Peabody population was not sufficiently recognised by Dr. Newsholme, and that too much importance was attributed to the comparison of the Peabody rate with the rate for the whole of London. The practical impossibility of constructing thoroughly trustworthy statistics for groups of houses or blocks on account of the shifting character of the population and the grave difficulty in the way of debiting to such population the number of deaths really belonging thereto and occurring in workhouses was urged by many speakers. Dr. Farr's formula for ascertaining the effect of density upon mortality was frequently referred to, and it was generally admitted that while the so-called "law of density" was in force during the thirty years 1840–70, dealt with by Dr. Farr, it is no longer strictly applicable on account of the marked reduction of the general death-rate of the country since the passing of the Public Health Acts of 1872 and 1875, and especially on account of the far greater reduction of the rate of mortality in town than in country districts. It is quite possible that in some towns, or in some parts of some towns, the effect of density is nearly as fatal now as it was when Dr. Farr constructed his formula, but one of the most marked results of sanitary improvements has been to render possible the constant increase of density of towns without a corresponding increase of mortality, and even coincidently with a continued decline in the rate of mortality.

EPIDEMIC OF ERGOTISM.

DR. REFORMATSKI has published an account of a somewhat serious epidemic of ergotism, or, as he calls it, "pernicious spasm," which occurred during the latter part of 1889 and the early months of 1890 in the Nolinski district of the province of Viatka in Eastern Russia. The number of persons attacked is given as 2749, of whom 535, or nearly 20 per cent., died. Men, women, and children all suffered, especially the poorer classes, who, having no store of flour, had to use the product of the harvest of 1889 as soon as the corn was cut. Soon after eating bread made from the diseased corn persons were affected with vomiting and sometimes diarrhœa, and complained of pain in the epigastrium or over the whole abdomen. This was followed by headache and giddiness, also by great prostration or by a condition similar to that produced by alcohol, and by a great desire to sleep. Sometimes vision was disordered, temporary blindness occurring in some cases. After these symptoms, convulsions and tonic spasms frequently came on, and from this, which of course was one of the most prominent features, the name "pernicious spasm" arose. The spasm affected different groups of muscles, especially the flexors of the limbs, those used in mastication, and the throat muscles. Loss of consciousness or epileptiform fits followed, and many of the patients suffered from mental disturbance. A good many suffered from gastric symptoms and trophic changes, affecting the hair and nails. A table is given of cases treated in a certain hospital, showing the number admitted each month and the frequency of the different forms of the disease; 55 per cent. suffered from spasms, 18 per cent. from mental disorder, 6 per cent. from fits, 8 per cent. from fits combined with spasms, and 12 per cent. from fits, spasms, and mental disorder. In some villages a somewhat different form of the disease presented itself in cases where barley or oaten sour bread had been eaten, the symptoms being headache, prostration, and drowsiness. These cases were all of a mild description, and the patients recovered completely after a prolonged sleep. In one of the post stations the thirteen ostlers belonging to it were all affected some twelve hours after eating some hot cake. Though they were very weak and sleepy the exigencies of their situation compelled them to harness and start the horses. Three of the men had as much as they could do to attend to a single pair of horses, and one man was so overcome by drowsiness that he fell from the coach box. The next day there was less traffic and they were able

to rest, but having eaten some more of the deleterious material they suffered as before. The third day they recovered. Dr. Reformatski discusses the prophylactic measures which should be taken in order to prevent a recurrence of these epidemics. Of course, instruction should be given to peasants generally as to the dangers of ergot, but Russian peasants are apt to be obstinate. A still better and more efficacious plan is to inform them of the great value of the diseased corn and to take care that there are ready means open to peasants of disposing of any that may be in their possession at, say, 6*d.* per pound. Something, too, may be done by watching the corn as it is brought to the mills to be ground.

ONE OF THE LATEST NOVELTIES.

IT is not often that medical or surgical inventions are capable of exciting amusement. Such, nevertheless, appears to have been the effect produced by one of the latest of their class—that suggested in our issue of Feb. 7th by a correspondent who advises the use of a distinctive "medical hat." In justice to the originator of this novel idea we must recall the fact that he is evidently guided by a more practical and a more professional motive than the mere desire for self-advertisement. The hat in question is not of the same family as the curious robe and wand of the ancient charlatan. It has more affinity with the clerical broad brim or the barrister's wig and gown, and the chief purpose of the inventor, a practitioner in the country, evidently is to facilitate recognition and thus reduce the fatigues of the daily round. Viewed in this light, the proposal is not perhaps so laughable as some have imagined. Knowing, however, the aversion of medical men in general, and especially of rural practitioners, to anything like a stiffly professional fashion in dress, we are not surprised that the proposed hat has been somewhat battered by its contact with freely expressed opinion. The horse and carriage, the still approved surtout, and the inconveniently convenient bag may be considered to give enough of the professional aspect without the added bondage of a peculiar headdress. Any who may still desire to increase the number of their accoutrements have of course the option of adopting the newest fashion in medical dress.

ENLARGEMENT OF THE SPLEEN IN INFECTIOUS DISEASES.

AN interesting series of researches have been carried out by Martinetti and Barbacci (*Morgagni*, September, 1890) with reference to the enlargement of the spleen which frequently occurs during the course of the acute infectious diseases. Twelve guinea pigs and six rabbits were inoculated with anthrax. In half the number of the animals the spleen had been extirpated before inoculation. The absence of the spleen seemed to have no effect on the course of the disease. The temperature was taken in eleven of the cases, and exhibited at first a slight rise, but at a certain stage of the disease the temperature fell suddenly, this corresponding with the appearance of bacilli in the blood and a considerable decrease of the red blood-corpuscles. This was accompanied by an increase of white cells, most marked in those animals in which the spleen had been removed. The changes which occurred in the spleen were noted in those animals which had not been previously operated on and also in thirty-six white mice. The alteration was not apparent until the bacilli appeared in the blood. The first changes observed were that in various parts of the organ, and especially around the Malpighian corpuscles, the cells became granular and their nuclei stained more deeply; the spaces between the cells became wider and appeared to be filled with a homogeneous substance. In addition yellow pigment and red blood-cells were found in the interstices of the tissues. At this period, also, in the spleens of mice and in the parts not affected by the above changes, large cells were seen with irregularly shaped nuclei, similar to those which occur in the marrow, spleen, and other organs during the embryonal state. Anthrax bacilli were also demonstrated. In the further course of the disease the spleen substance became more and more infiltrated with blood, and the large cells just described underwent a regressive metamorphosis; so that finally there was an appearance as if gangrene had commenced. In contrast with the passive processes taking place in the pulp, more active changes were occurring in the Malpighian corpuscles, in spite of the almost complete absence of bacilli. The follicles increased in size, and there was rapid increase of nuclei. As regards the lymphatic glands, no difference was appreciable between the animals which had had the spleen removed and those which had not. Changes were first observed in the medullary substance, and these were principally disorders of circulation — hyperæmia followed by stasis and thrombosis. In the cells rapid cell proliferation took place, but no bacilli could be demonstrated. In some of the guinea-pigs the bone marrow was examined. In those in which the spleen had been removed there was an increase of pigment, both free and in the cells; giant cells were also more numerous. In all the animals there was an increase in number of the red and white blood-cells, and larger cells of unknown nature were also noticed. In the giant cells, contrary to what has been stated by most observers, undoubted signs of karyokinesis were noticed. The large cells which were found in the spleen during the first stages of the disease, and in the bone marrow during the whole course of it, were considered by the authors of the paper to stand in some relation to the source of the red blood-cells, and to be an effort on the part of the organism to make up the loss of these cells by fresh elements.

COTTAGE HOSPITALS.

AT the recent annual meeting of the subscribers to the cottage hospital at Mold a resolution was passed limiting the medical staff of the institution to two legally qualified and registered surgeons, to take duty on alternate weeks. An amendment to the effect that any practitioner should be allowed to attend his own patients was not carried. Seeing that there are about six practitioners in the neighbourhood, it seems unfortunate that the staff should be limited, since this might make the practice of the institution too exclusive—a most undesirable thing in our opinion, and one not tending to the furtherance of the spirit of goodwill and fellowship that should obtain amongst professional brethren. The conditions under which a cottage hospital in a comparatively small district is best carried on are those which involve the mutual coöperation of all the medical practitioners in its vicinity.

THE RESULTS OF ENTERIC FEVER AT SOUTHEND.

WE have more than once commented on the doings of Southend in connexion with the recent widespread epidemic of enteric fever in that place. But the last news surpasses much of the former action adopted. According to local statements, the medical officer of health, Mr. Albert Morris, submitted to the local board of health a statement as to the causes of the disease, which report was strongly condemnatory of the existing sanitary administration, and from the local press we learn, on Mr. Morris's authority, that his statements, whatever they were, were fully confirmed by Dr. Thresh. This report has never seen daylight, although the authority are challenged to produce

it. The other day, the date on which the re-election of Mr. Morris came due, he was quietly passed over, and his predecessor in office, who resigned his office after having some years back "told the Board what he thought of them," was again elected to the office. We can only repeat that the authorities of Southend are not going the way to restore that confidence in the sanitary administration of their "health resort" on which success must necessarily depend. Mr. Phillips, the re-elected officer, may be trusted to advise rightly in the difficulty; but some ratepayers would have been more satisfied if they had seen Mr. Morris's report before its author was shelved. Since Mr. Morris was doubtless under the obligation to transmit every "special" report to the Local Government Board, a copy of the document might possibly be procurable through that department.

THE DIAGNOSTIC VALUE OF FLUORESCEIN DYE IN DISEASES OF THE EYE.

DRS. FROMM and GROVENONN, assistants in the eye clinic at Breslau, publish in the *Archiv für Augenheilkunde* an account of some experiments with fluorescein. They experimented with the potash salt of fluorescein and the soda salt of fluorescin, preferably with the former in a 2 per cent. solution. One drop of this liquid is dropped on the conjunctiva; it is well afterwards to wash the conjunctiva with water or any indifferent liquid. The normal cornea is never coloured, but if it is anywhere denuded of epithelium such spots and the whole region near them become stained of a diffused green colour, which generally disappears again in from two to three hours. The corneal substance is deeply impregnated with the colour, but the epithelium is only slightly tinged on each side of the defect. Practised observers have confessed that by no other means were they able to detect and map out a corneal lesion so well as with fluorescein. This chemical is most valuable for the diagnosis of superficial injuries which are often difficult to recognise, as if these do not take the stain a fresh injury may certainly be excluded. Particles of rust which often remain after the removal of foreign bodies, and are difficult to recognise, are plainly distinguished from their green base. Every ulcer is of course coloured, and a green colouration is seen over every abscess and infiltration. Opaque spots, however, do not stain, and so are distinguished from fresh lesions. In the conjunctiva the localities of any loss of substance are coloured yellow, and injuries become visible which otherwise could not have been discovered. In conjunctivitis only phlyctenulæ become coloured, and by this means they are distinguished from other nodular prominences. The deeper parts of the eye are not affected.

THE NEUROPATHIC ELEMENT IN SPASMODIC ASTHMA.

ALTHOUGH the general explanation of the asthmatic paroxysm is that it is due to bronchial spasm, which may often be excited by peripheral nervous irritation—a view that has received much attention of late in respect to the causal relationship of nasal polypi and asthma,—nevertheless there have not been many attempts to demonstrate the existence in the asthmatic of an underlying state of nervous instability. This lacuna is in a measure filled by a paper by Professor E. Brissaud (*Rev. de Méd.*, Dec. 1890), in which he collates a considerable amount of evidence to show that the (true) asthmatic may be regarded as a neurotic; and hence the removal of the supposed exciting cause (e.g., nasal polypi) can hardly be expected to be curative. Indeed in many cases, he avers, the asthma has recurred some time or other after the patient has undergone prolonged treatment at the hands of the rhinologist. The probability of some inherent nervous defect in a disease like asthma, the periodical recurrence of which reminds one of the epileptic nerve-storms, seems so self-evident that it is singular so little attention has been paid to it, even by such a strenuous advocate of the nervous theory of the paroxysm as Hyde Salter, for instance; but the fact is that attention has been fastened too much on its alleged diathetic relationships, and also to the existence of local organic disease, of digestive, respiratory, or generative organs as possible sources of reflex irritation. On the other hand, the association of asthma with insanity and alternation of attacks of the mental affection with those of the respiratory apparatus, has been noted by several alienists, and Professor Brissaud quotes in this connexion the writings of Savage, Kelp, and Conolly-Moore. Cases are given of asthma associated with hypochondriasis, melancholia, and hysteria, or combined with some mental disturbance or other nerve disorder, as neuralgia or epilepsy. The general conclusion is that asthma is only one manifestation of the general neuropathic tendency, and that an inheritance of nervous disorder is a main predisposing factor in the affection. Like migraine, which once was considered in France to belong to the "arthritic" group, but which is incontestably regarded now as "neurotic," asthma, too, has relationships far more close with the neuroses than with any diathetic state. Of course, it is not implied that in the same subject other nervous manifestations must necessarily occur, even in their slightest form, for this is not essential to any single neuropathic affection. It is only that the asthmatic belongs to the group of neuropaths, and that his special affection may be the sole expression of his alliance therewith. Hence it is explicable how comparatively slight peripheral irritation of sensory nerves—e.g., of the nasal mucous membrane, or odours, or even simple mental apprehension or dread of attacks supervening under certain circumstances—may suffice to induce the asthmatic paroxysm in the individual of nervous constitution. Nor, as stated, can the cure of spasmodic asthma be reasonably expected to invariably occur after the removal of the supposed exciting cause.

METHOD OF ADMINISTERING SULPHONAL.

EVERYONE who has used this drug must have noticed how much it varies in the rapidity with which its effects are produced according to the method of administration. Given in powder on the tongue its action is much delayed, and is occasionally only produced in its greatest intensity on the day after its administration. Given, however, with, for example, some hot soup, an hour or two before bedtime, its effect is not so long delayed and is more certain. Dr. Stewart of Philadelphia has found a simple and satisfactory method of using the drug, which he describes in a recent number of the *Medical News*. He directs that just before retiring the dose of sulphonal should be placed in a tumbler, which is then filled two-thirds with boiling water. This dissolves the powder. The solution is then stirred until it is sufficiently cool for drinking, or cold water is added to reduce it to a suitable temperature. Such a temperature is reached without causing any precipitation of the drug. To insure success the sulphonal must be taken wholly dissolved, and the hotter the solution is when taken the better. By this method the period of so-called therapeutic incubation is done away with. Sleep results in most cases in a very few minutes, and is said to be sound and dreamless. Another advantage which this method of administration is said to possess is that it is not followed by the annoying drowsiness so often present on the day after the administration of the dose of sulphonal. The taste of the solution is said to be a little

unpleasant, but this is easily overcome by the addition of some flavouring substance. Undoubtedly its insolubility is the great objection to sulphonal, and if it can be administered in this simple way, so as to produce its effect promptly and efficaciously, its value will be much increased.

ALLEGED BREACH OF THE NOTIFICATION ACT AT BOLTON.

A MEETING of the medical men of Bolton and district was held last week to consider the recent prosecution of Dr. Gilchrist by the Bolton Rural Sanitary Authority for an alleged breach of the Infectious Diseases Notification Act, 1889 (reported in our last issue). There was a large attendance, and Dr. Smith was voted to the chair. After a general discussion upon the merits of the case, it was unanimously resolved that it be a recommendation from that meeting to the Parliamentary Committee of the British Medical Association, local members of Parliament, rural sanitary authorities, and other public bodies, that steps be taken to get inserted in the Act a clause whereby the defendant in such cases may give evidence in his own defence. There was a general feeling expressed also that it was undesirable for a medical officer of health to make a clinical examination of a patient upon notification, as in this case.

TUMOURS OF THE BRAIN.

A PAPER on this subject was read a short time ago before the Boston Society for Medical Observation by Dr. Stedman, and several cases of so-called cerebral tumour were related. The cases are very interesting, and, as each of the five dealt with is completed by a necropsy, they ought to be a valuable series. But unfortunately their value is not so great as might be expected, because while some of the cases are no doubt what would be strictly described as tumours, others are, so far as the evidence in the paper at least can inform us, cases of cerebral softening, the result of embolism or of thrombosis. It is also unfortunate that the ophthalmoscope should not oftener have been called into requisition. We only find it mentioned as having been used in one case, and in that case apparently but once, and with a negative result. Considering how obscure the causation of optic neuritis is, and how important it is to make quite certain of its presence or absence in a given case of suspected cerebral tumour, no apology is needed for insisting upon the importance of such an examination in these cases; and, while acknowledging the interest and value of Dr. Stedman's cases, we can only regret that imperfect examination renders them less valuable than they might have been made.

THE GERMICIDAL PROPERTIES OF BLOOD.

A GREAT deal of important information has lately been obtained on this subject, and von Fodor, who has already contributed some useful papers, publishes in the *Centralblatt für Bakteriologie und Parasitenkunde*, vii., No. 24, some further experiments which he has made, especially directed to ascertain under what conditions the germicidal properties of the blood are at their highest, and in what way the composition of the blood affected these properties. The first series of researches had reference to the composition of the blood, and proved, in the first place, that arterial blood has a more destructive action on the bacteria than venous, and also that fresh blood has a more powerful action than that which has been shed for some time. Again, the germicidal power of the blood was weakened in an atmosphere consisting entirely of oxygen or carbolic acid; on the other hand, the removal of gases from the blood had no appreciable influence. The blood of rabbits which had been poisoned by carbolic acid gas was not fatal to the bacteria. As regards the influence of the movement of the blood (circulation), experiments were made by placing the blood of rabbits, which had already been inoculated, in small globes, some of which were kept in constant movement and others quite stationary. No appreciable difference was observed. Some very interesting results were obtained in reference to the temperature of the blood. From these it would seem that the germicidal power of the blood increased with the rise of temperature, reaching its maximum at 38° to 40° C., and then again gradually diminishing. The author mentions an interesting fact—i.e., that the individual predisposition of any animal to an infectious disease seemed to stand in direct relationship with the germicidal power of its blood. The second series of researches was directed to the influence of drugs on the power of the blood to destroy germs. Hydrochloric acid had no effect. After treatment by tartaric acid a marked decrease was noticed, and the same result was produced by quinine. Common salt and carbonate of ammonium caused a slight increase of the power, the phosphate of sodium a more marked effect, whilst the carbonates of sodium and potassium produced a very remarkable increase. From the experiments the author concluded that any drugs which cause increased alkalinity of the blood considerably raised the resisting power of the organism against the inroad of bacteria. The third of this series of experiments corroborated this supposition. Of eight rabbits inoculated with anthrax all died, whilst of nineteen which had been previously injected with soda solution only three died, thus proving the efficacy of the alkalisation of the organism. Of the remaining sixteen cases a few were affected at a later date, but the majority remained perfectly free from disease.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College was held on the 18th inst., the President, Sir Andrew Clark, Bart., in the chair. It had been specially convened to receive a communication from the Registrar of the University of London, transmitting, by direction of the Senate, a further revised scheme for the reconstitution of the University. The communication was read, and the President explained the tenor of the scheme so far as it related to the College and the faculty of medicine. A recommendation from the University Committee to the effect that the scheme be accepted by the College was read, and its adoption moved by Sir R. Quain, and seconded by Sir Risdon Bennett. Dr. Sansom moved an amendment to defer action on the part of the College till the opinion of Convocation had been taken on the scheme. This was seconded by Dr. N. Moore. Drs. Bastian, Allchin, and Sir R. Quain having also spoken on this amendment, it was put and lost by a large majority. After some further remarks by Drs. Pye-Smith and Lionel Beale, the original resolution was carried *nemine contradicente*.

NEW CLOTHES A VEHICLE OF CONTAGION.

THERE is probably no custom which lends itself more readily to the propagation of infectious disease than the household manufacture of certain goods, especially of articles of clothing. Every practitioner whose duty calls him to the homes of the working poor must have been struck with this fact. In many cases it could not well be otherwise under existing conditions. The two or three available apartments are occupied by a fairly numerous family, and a separate workroom would be regarded not unreasonably as a needless concession to personal comfort. Thus it happens that the same chamber, nay, the same bed, often contains or bears the sufferer from scarlatina or measles, and the jacket or gloves which to-morrow will adorn the window of some city clothier. Disinfected? Probably not, unless it be under pressure of some external

authority, for the class of workers to whom we have referred too often exhibit a surprising ignorance or carelessness with regard to the properties of contagion. The advantages conferred by the Notification Act may not be equally apparent among better educated and more scrupulous persons. These are commonly a law to themselves. To the home of the poor worker it comes as a purifying force, and ensures as far as medical and sanitary supervision can the observance of such rules as are needful to prevent the spread of disease. In the present connexion these must imply the effectual purification of all clothing before it leaves the infected house, and the refusal to the inmates of any more work of a like sort during the prevalence of the illness.

THE MECHANISM AND TREATMENT OF IMPACTED SHOULDER PRESENTATION.

DR. C. A. HERZFELD of Vienna upholds, in a most interesting contribution to Holder's *Sammlung Medicinischen Schriften*, Dr. C. Braun's key-hook as the gentlest, most rational, and most successful of all instruments indicated in impacted shoulder presentation. The author has carefully studied the whole reference literature, and has observed twenty-five cases in Braun's clinic. These cases offer strong evidence of the simplicity, suitability, and safety of the application, as in none of them did the decapitation of the child lead to any injury of the mother.

TESTIMONIAL TO MR. GANT.

AT a meeting of the Committee of the Royal Free Hospital, held on Jan. 15th, 1891, Mr. Gant was presented with an illuminated scroll by the committee on the occasion of his retirement after a period of thirty-seven years' service on the surgical staff of the hospital. The committee desired "to place on record their high appreciation of his very valuable services, which, together with his well known works on Surgery, have reflected the very greatest credit upon him and the institution with which he had been so long and so honourably connected." Mr. Gant was also appointed a consulting surgeon to the hospital.

ORGANIC HEART DISEASE AT DIFFERENT ALTITUDES IN SWITZERLAND.

TAKING as a basis the statistics of Switzerland for the years 1876 to 1886, recording 25,500 cases of death from organic heart disease, Mdlle. N. Iwanoff has written an essay on the question whether mountaineers suffer more frequently from that disease than the inhabitants of the plains. The writer has constructed a table in which all the localities of Switzerland were divided into four categories, according to their altitudes. In the first, situated from 200 to 400 metres above the level of the sea, there was a mortality from organic heart disease of 102 per 100,000 inhabitants; in the second, situated from 400 to 700 metres above the level of the sea, the mortality was 92 per 100,000; in the third, from 700 to 1200 metres above the level of the sea, 82 per 100,000; the last category, comprising all higher altitudes, had a mortality of only 47 per 100,000. These numbers show plainly that the mortality of organic diseases of the heart decreases as the altitude of the habitation increases. As a secondary result of the inquiry, it was found that this mortality is higher in towns than in the country. These results are all the more interesting, as formerly all eminent physicians, excepting perhaps Stokes, forbad their patients all unnecessary exertion, and even now Oertel's treatment meets with considerable hostile criticism. Professor A. Vogt of Bern adds several statistical remarks to the essay, from which it appears that if the population were strictly divided into agricultural and industrial districts the law of decrease of organic heart disease in proportion to the higher altitude would be more marked in the agricultural districts. The statistics of the industrial districts seem, on the other hand, to refute the law. Considering, however, that the mountaineers are mostly watchmakers or machinists, while in the plains there are more builders and other artificers, whose work requires uninterrupted motion of the body, Professor Vogt concludes that this deviation from the rule is only apparent. This conclusion seems justified by the fact that, of 100,238 recruits, the proportion of heart disease amongst those of sedentary occupation far exceeded all the rest.

POOR-LAW MEDICAL OFFICERS AND THEIR DEPUTIES.

A DISPUTE has been going on lately between the Holborn Guardians and their medical officers in reference to the appointment of deputies. The guardians have passed a resolution forbidding their medical officers to appoint deputies amongst themselves, though the plan is pretty generally adopted, and also works well, both as regards the patient and the medical officer. It is an arrangement, too, which is sanctioned by the Local Government Board. Moreover, it is to be remembered that the difficulty of finding outsiders is very great unless the medical officers devote the greater part of their salary to remuneration for such service. The best advice we can give to the medical officers who have appointed their deputies is to comply with the standing orders and let the guardians and Local Government Board fight out the matter amongst themselves.

THE DRINK BILL FOR 1890.

IT is appalling to find that the Drink Bill of 1890 amounts to £139,495,470, an increase of £7,282,194 over the sum of the previous year,—all common sense and medical science notwithstanding. It is said to be equal to one-twelfth of the estimated income of all persons, to one-fifth of the National Debt, and to be eight times more than the income of all the Christian churches. It is not our business to moralise on this expenditure. To us it means so much cirrhosis, Bright's disease, gout, rheumatism, insanity, &c.,—disabling employment, taking the pleasure out of the life of families, and bread out of the mouths of children. The Drink Bill for last year is larger than for any year but that of 1878, when it was more than 142 millions of pounds.

OVERCROWDING AND OPEN SPACES.

IN a paper on overcrowding in towns, the first part of which has just been published, Mr. C. Roberts discusses the density of population in the zone of parishes immediately surrounding the City district of London. His estimate of an ideal density is by no means unreasonable. It is already realised in certain parishes, notably in that of Islington. It allows a population of 108 persons to the acre, and eight persons to each house within this area. The death-rate under such conditions, it is interesting to note, is in Islington as low as 13·3 per 1000. A table of statistics, founded on information derived from reports of medical officers of health and other sources, proves that this proportion represents the exception, and excess the rule, throughout the circuit of the "Greater City" above mentioned. A higher death-rate recorded in these cases might be regarded as a significant accompaniment, were it not that its prevalence in other less crowded parishes asserts the active influence of other causes. As regards the important subject of open spaces, Mr. Roberts' views may well satisfy the most liberal of his readers. They are as comprehensive in scope as wholesome in purpose, and their accomplishment cannot

certainly be the work of a day. Among other prospective changes he proposes that the grounds of Lincoln's-inn-fields, the Foundling Hospital, St. Luke's Asylum, the Artillery Ground, and various neighbouring almshouses should be utilised in this way, the dispossessed occupants of the foundations above named being transferred to the country near London. To do all this of course implies no trifling cost in effort and in money. The execution of a similar but more limited scheme might, however, be accomplished without much difficulty, and the free enjoyment of even one of the considerable areas mentioned would greatly increase existing facilities for physical recreation.

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—Dr. Bumm of Erlangen, who was offered the chair of Mental Diseases, has declined to leave his present chair.

Erlangen.—Dr. F. Hermann has been promoted to an Extraordinary Professorship of Anatomy.

Heidelberg.—Dr. T. Hoffmann has been promoted to an Extraordinary Professorship.

Leipsic.—Professor Sattler of Prague has been offered the chair of Ophthalmology, vacant by the death of Professor Coccius.

Munich.—It is now stated that Professor Angerer is to be appointed to the chair of Surgery recently left vacant by Professor von Nussbaum's death (i.e., *not* Trendelenberg, as in THE LANCET of Jan. 31st).

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Bousonet of Marseilles, suddenly, while bending down to examine a patient.—Dr. Michaelis of Berlin, formerly in large practice as an ophthalmologist.

THE Parliamentary Committee of the London County Council have recommended the adoption of the following resolution: "That a petition be presented to Parliament by the Council in opposition to the Metropolis Water-supply Bill; and that the Council do oppose each of the following Bills, against which they have presented petitions: The London Water Commission Bill, the Southwark and Vauxhall Water Bill, and the Croydon Water Bill; and that the costs and expenses incidental to the said petitions and the proceedings consequent thereon be charged to and paid out of the county fund." It was pointed out that it was necessary to have a majority of the Council in favour of the resolution to make it effective, and, the show of hands showing only sixty supporters, a division was demanded, when the numbers were: For the resolution, 75; against, 17; majority, 58.

SIR G. M. HUMPHRY, F.R.S., has, we understand, accepted the invitation of the Cambridge Medical Graduates' Club to a congratulatory dinner to be held at the Marlborough Rooms, Regent-street, on the 24th inst. Sir George Paget, K.C.B., is to preside. Invitations to the dinner have been accepted by Sir Joseph Lister, Bart., F.R.S.; the Provost of King's College, Cambridge; Sir Alfred Garrod, F.R.S.; Mr. Bryant, President of the Royal College of Surgeons; Dr. Priestley; Mr. Hutchinson, F.R.S.; and other leading members of the medical profession.

THE death is announced at Potsdam of the well-known optician, Professor Edmund Hartnack, with whose microscopes everyone is familiar. He commenced his manufacture of optical instruments in Berlin, but subsequently removed to Paris. Political feeling there, however, drove him out of France in 1870, and since that time he has been living in Potsdam. The University of Bonn conferred an honorary doctor's degree on him in 1868, and the Minister of Education granted him the title of professor in recognition of the invaluable services he had rendered to science.

THE second lecture of the course of Ingleby lectures now being delivered by Mr. Jordan Lloyd, M.B., M.S., F.R.C.S., in the Examination Hall of Queen's College, Birmingham, will be given on the 26th inst. The course will be continued on the following five Thursdays, the subject being "Practical Observations on the Surgical Diseases of Children."

WILLIAM R. HUGGARD, M.A., M.D., M.R.C.P. Lond., Prakt. Arzt, Schweiz, has been appointed British Pro-Consul at Davos-Platz, Switzerland.

DR. DAVID W. FINLAY has been appointed Extern Examiner in Medicine to the University of Durham for the current year.

THE DEBATE ON KOCH'S REMEDY AT THE BERLIN MEDICAL SOCIETY.[1]

THE proceedings of the Berlin Medical Society on the 11th inst.[2] respecting Koch's remedy were of considerable interest, Professor Virchow again intervening in a long speech.

Dr. SILEX showed a case of lupus of the face, nose, and conjunctiva, which reacted well to the injections. After 120 milligrammes had been given the lupus appeared to be healed; but within ten days it reappeared, and in from two to three weeks the nodules were as large as ever. The effect on the conjunctiva was less marked; indeed, the whole of the left cornea became covered with pannus. He added that but few cases in the eye clinic had been treated by the remedy.

Dr. A. FRAENKEL reported on the sixty-one cases of lung disease treated at the Urban Hospital for at least four weeks; forty-eight had been treated for more than seven weeks, and some even for as long as eighty days. He divided the cases into slight, moderately severe, and severe. The "slight" comprised those of moderate infiltration of one apex; the "moderately severe" those with infiltration of a whole lobe, or of both sides, or complicated with pleural effusion or slight laryngeal tubercle; and the "severe" those with indubitable signs of excavation, or complicated with intestinal tuberculosis or advanced laryngeal affection. Of the total eighty-three cases (including those treated for less than four weeks) there had been two deaths. One was a woman who, together with manifest pulmonary signs, had paralysis of the left sixth nerve; and after the third injection of 0·001 grm. she had headache and other signs of tuberculous meningitis, from which she died in a week. The other was a man aged fifty-one, with marked affection of both lungs. He received five injections, the last being 0·005 grm., which was followed by severe dyspnœa and death in three days. But there was no evidence of acute congestion or pneumonia—only old caseous foci and some large cavities in the right upper lobe. In seven cases the treatment had to be suspended—in three on account of hæmoptysis, in one after a week's injections, which had reached 0·1 grm., and the hæmoptysis lasted for twenty-four days. In four cases an aggravation of symptoms caused the suspension of injections. In one, a case of double pleurisy, with unilateral phthisis, severe dyspnœa; and in three, persistent fever with increase of local signs. One of these was especially remarkable—the changes in physical signs being very striking, and attributable to severe catarrhal

[1] See THE LANCET, vol. i. 1891, pp. 215, 271, 328, and 389.

[2] Considerations of space compel a considerable curtailment of this report, which occupies sixteen closely printed columns of our contemporary, the Berliner Klinische Wochenschrift, No. 7.

pneumonia. One case of lupus of the soft palate, pharynx, and larynx, together with renal tuberculosis, was treated with great caution; but no reaction was observed, although as much as 0·07 grm. was reached. Still latterly there seemed to be some melting down of the tubercular growth on the epiglottis and false cords. As to the pulmonary cases, he held that, whatever the value of physical signs, one could not speak of a relative cure so long as the sputa contained bacilli; and, indeed, he did not think the time had yet come to speak of absolute cures. He mentioned a case in which bacilli had been absent for nine weeks, when hæmoptysis supervened, possibly from a small, not recognisable, cavity. Of the sixty-one cases, there were three in which bacilli were absent for from seven to nine weeks, and the physical signs, always slight, had subsided. In no fewer than fifteen of the slight cases no change as regards amount of bacilli could be noted; and yet these were cases with the very slightest physical signs, including some which for two months had been receiving 0·1 grm. twice a week. Bacilli may spontaneously disappear from the sputum for some time. Twenty-eight cases (thirteen slight and fifteen moderately severe) might be described as improved; not as regards the bacilli, but subjectively, and in aspect, in diminution of sputum, and in increase of weight. He had often remarked a notable increase in weight of such patients before the introduction of Koch's treatment, but nevertheless the general improvement under the influence of the injections was very striking. In twenty cases (three slight, thirteen moderate, and four severe) no change had been observed. Lastly, nine cases (six moderate and three severe) had got worse, showing that it could not always prevent extension of the disease. He summed up his experiences as:—1. A limited number, especially of slight cases, undergo a marked change for the better, bacilli disappearing from sputa and general nutrition improving, this being apparently due to the melting down of caseated infiltration. Yet such a result cannot always be predicted, even in the mildest cases. 2. In a large number (about one-half) there is improved nutrition, which may be due to Koch's method or to tonic and dietetic treatment. 3. In no small percentage the moderately severe cases grow worse, and sometimes from conditions attributable to the treatment. 4 Severe cases ought to be quite excluded from the treatment.

Dr. JULIUS WOLFF spoke of the treatment in joint disease, detailing two cases in which marked extension of the tubercle took place. He did not think the original hope, that the presence of "dead tuberculous tissue" would more clearly define the parts to be excised, had been fulfilled, nor that the general and local reactions were at all proportionate to the extent of the local process. But in not one case had the general condition of the patient been unfavourably influenced by the remedy, nor in the cases operated upon had it had any bad effect on the course of the wound.

Dr. FLATAU referred to two laryngeal cases shown by him a fortnight back, in which, during marked improvement, there suddenly arose a fresh outbreak of miliary tubercle in the larynx. In the one, where there was nothing in the larynx at first but a small cicatrix, and where marked improvement took place in the pulmonary signs, there was a further extension of disease in the larynx, and appearance of tubercle in the tonsil, which had disappeared; and no further extension occurred, although the injections were pushed as far as possible. In the other patient, where weakness precluded continuance of the injections, more nodules had appeared, the older ones becoming more opaque.

Professor VIRCHOW spoke at considerable length upon the question of the cure of tubercle, so variously interpreted; and in the first place he inquired what was precisely meant by the term "tuberculous tissue" used by Dr. Koch. The conception of "tubercle" had undergone so many changes that it was difficult to be sure of the meaning now conveyed by it; but it was clear that the tissue referred to by Dr. Koch was not the circumscribed granulation, but a diffuse infiltration. It had been objected that too much attention had been paid to anatomical facts, but only in that way could certain information be obtained. No one doubts that in a tubercular inflammation—e.g., arachnitis tuberculosa—there are two factors: inflammation, producing an exudation; and tuberculosis, a tissue. So in the lungs, besides the true tubercle or tissue, there is in the course of phthisis the occurrence of a quantity of inflammatory processes which are not tubercle, such as the smooth, soft, catarrhal form, and the hard caseous form of inflammatory change. The difference is as great as that between the exudation and the tubercle in a tuberculous arachnitis or pleuritis. In the lungs there are inflammatory processes filling the alveoli, producing hepatisation &c., and another process excited by true tubercle, which forms a tissue. A like diversity is to be seen in the processes in tuberculous arthritis. In reference to the action of the injections, he wished the distinction could always be borne in mind between (1) the tissue strictly tubercular, (2) the tissue which arises near to or precedes the tubercle, and (3) the mere exudation products. One asks—Does Koch's remedy act on all three? Possibly, but the ostensible action is certainly not shown to an equal extent on all three. Deferring consideration of the point raised by Dr. Flatau as to the production of tubercle by the injections, there is no doubt that an immediate action of the remedy on tubercle as such is by no means uniform and constant. This may depend in part on the site of the tubercle—e.g., in liver, or mucous or serous membrane, &c., differences in physiological conditions. By the "cure" of tubercle in a mucous membrane is meant its breaking down into an ulcer, and the ultimate cicatrisation of the latter, all the tubercular matter having been got rid of. In a serous membrane, such ulceration, which so rarely occurs there, leads to fatal issues, and cannot be regarded as a curative process. Laryngeal tubercle differs from intestinal in rarely caseating (on this ground Louis denied the existence of laryngeal tuberculosis); the ulcers it excites are more superficial and earlier formed. As to the effect of the injections, it is of course impossible to determine whether certain tubercles were present or not before these began; but it is clear that the remedy does not act on all tubercle, for often no indications of degenerative change or of their resolution are visible. Tubercle tends rather to be encapsuled than removed by absorption; and he had not seen any more evidence in favour of the latter process in the present than in the past. Dr. Koch had said the bacilli were unaffected by the remedy, and if it were true that the tuberculous tissue were dissolved and rendered capable of absorption, the bacilli might be absorbed too, with considerable risk. Professor Virchow thought rather, from the clinical and anatomical facts, that the remedy acted upon the tissue around the tubercle, which might beneficially lead to its extrusion, but also imperilled the patient from its extent and intensity. In his previous statements he had only referred to conditions which had occurred, and thence left it to be inferred what were the risks involved; but the determination of the relative frequency of these dangers can only be made after prolonged investigation. The severe changes excited in the vicinity of the tubercle, as seen in cases of lupus and of laryngeal tuberculosis, are probably reproduced in lungs and brain, producing conditions of acute swelling, hyperæmia, œdema, hæmorrhagic infiltration, leucocytal emigration, and, later, new formation of tissue. Then there is the question whether Koch's method does not hasten disintegration processes. It might be affirmed positively that the remedy does not excite any process which cannot occur apart from it. Apart from cases showing extreme increase of a phlegmonous process, all the changes induced are those previously known as forms of inflammation or mortification. But their progress is hastened, so that in a couple of days as much destruction is brought about as might perhaps have otherwise taken a month; and under certain conditions this is a great gain, for the more rapid removal of the noxious matters acts prophylactically against further infection of neighbouring or remote parts. The "clearing up" of affected parts of the lungs noted by some observers is explicable when the characters of catarrhal inflammation with concomitant atelectasis and bronchial occlusion are borne in mind. Fatty metamorphosis and the melting down or the shrinking of the hepatised areas may conceivably explain the improvement in physical signs; not to mention the rarer concomitant of resolving fibrinous pneumonia. So that the signs of "clearing up" are attributable to the process of catarrhal hepatisation. Hitherto we have known nothing of a spontaneous resolution of caseous hepatisation. When small, these foci may become encapsuled; when large, softer and excavate; but neither of these modes of "cure" will restore the respiratory capacity of the affected parts. No one has affirmed that Koch's remedy acts favourably on indurative and encap-

suling processes; its action consists in hastening the softening of caseous material. Herein lies the danger arising from the swallowing or aspiration of the rapidly softened products. So far, then, there was no evidence that the bacilli are killed and dissolved; no direct facts to prove that the remedy causes resolution of the true tubercular tissue or the absorption of tubercle as such. Then there was ample evidence that the tubercle as well as the inflammation is rapidly destroyed, thereby warranting a possibility of a relatively early cure. But there is no fact showing that induration and the encapsuling of caseous parts are favoured; rather is it that the remedy liberates masses previously encapsuled, and in that way converts an apparently harmless focus into a source of actual danger to the patient. Professor Virchow expressed the hope that the facts he had adduced might lead to more definite ideas as to the indications for the remedy, and the rejection of such cases as were manifestly unsuitable. He was far from considering these experiments as closed. He recognised with pleasure that it was highly important that such researches as had been related by Dr. Flatau should be pursued to determine if a true absorption occurs. It would be a wonderful thing if the tubercles evoked by Koch's remedy should also be made to disappear by its action. It was not impossible; but yet when we see the thousands of miliary tubercles in the bodies of those who had been injected (tubercles which some thought were all present before the injections) it is difficult to understand why tubercles arising in ordinary process of tuberculosis should escape, whilst those recently arising should disintegrate. It was important to know whether these "new tubercles" underwent any change spontaneously, whether, if the injections were not continued, they would increase in size, or what would happen to them.

Dr. FLATAU explained that the ideas about the cure of tubercle of mucous membrane were not his own, and that in the case he related the treatment had been suspended for a fortnight without any change beyond further outbreak, as related.

THE MIDWIVES' REGISTRATION BILL.

DEPUTATION TO THE LORD PRESIDENT OF THE COUNCIL.

A DEPUTATION consisting of about 100 representatives of corporations and medical societies was introduced to Lord Cranbrook by the Attorney General for Ireland, for the purpose of protesting against the Midwives' Registration Bill now before Parliament, and down for the second reading on March 3rd.

Mr. CROLY, representing the Royal College of Surgeons in Ireland, pointed out that the Council of that College would be quite willing to accept the Bill if adequate guarantees of education and competency were given. The training of midwives in Ireland had always been conducted with great care. The proposal to register all midwives now in practice was altogether objectionable. They ought to be made to show that they have been properly trained; and this was more important, inasmuch as the limitation to cases of "natural labour" was quite impracticable. In Ireland no person was recognised as a midwife without six months' training in a lying-in hospital and a subsequent examination.

The LORD PRESIDENT.—I observe that in this Bill Scotland and Ireland, except where expressly provided for, would not be affected by the Act.

Mr. CROLY continued that it was very important that midwives trained in Ireland should be put upon the English Register without any further tests.

The LORD PRESIDENT.—Yes, and that is provided for in Clause 8 of the Bill.

Mr. CROLY submitted that it was impracticable to entrust to separate County Councils or boards of guardians the examination and registration of midwives.

Dr. MACNAUGHTON JONES, representing the Royal University of Ireland, large numbers of the graduates of which were practising in England, said they opposed the Bill on the ground that it contained so many elements of danger that it was incapable of being satisfactorily amended in committee. It was an effort to legislate for an unknown quantity, and it did not attempt at any definition saving in one clause, where it refers to the midwife restricting herself to cases of "natural labour" only. Scientific obstetricians could not agree on this point. The Bill gave the women permission to attend that form of labour in which more than any other unskilled and uncalled-for interference imperilled the life of the offspring, and converted a perfectly safe case into one of considerable danger and difficulty. Legislation should take the form rather of securing for the public a high type of obstetric nurse, than in stereotyping and perpetuating an old and inferior grade of midwife. Not the least dangerous part of the Bill was that which qualified every existing "Gamp" who chooses to call herself a midwife to be registered without conforming with educational regulations and examination tests. If they could not do so, they ought to remain monthly nurses. The Bill did not define the duties of a midwife, or her responsibility in regard to puerperal septicæmia or the conveying of infection, and attached no penalty for neglect on the part of a midwife to call in skilled assistance at the proper time. The Bill contained inherent evidence of its having been drafted for a class without due regard to the interests or safety of the public.

Dr. JACOB, secretary to the Council of the Royal College of Surgeons in Ireland, pointed out that it would be permissible for incompetent women who were placed on the Register to come to Ireland, where a high standard of education had always been maintained, and practise midwifery. They dreaded that a similar thing would happen which occurred on the passing of the Dentists Registration Act, in consequence of which 4700 persons were admitted to the Register, the large majority of whom were not dentists in any sense of the word, and there they remained till the present day. They felt apprehensive that a similar course would be followed in the case of midwives, and the public for the next twenty-five or thirty years would be preyed upon by a large number of incompetent persons who had been annexed under this Bill simply by signing a paper stating that they were *bonâ-fide* practitioners of midwifery. He was authorised by the Apothecaries' Society of Ireland to state that in their opinion "no amending would make the present Bill tolerable."

Dr. GILBART SMITH, President of the Irish Schools and Graduates' Association, pointed out that, from the point of view of an ordinary physician, labour often became complicated from obscure organic disease, such as Bright's disease, and it would hardly be fair to leave the decision of such questions in the hands of a woman qualified by only a few months' training. The question had been discussed at a meeting of the Fellows of the Royal College of Physicians, and a committee had been appointed to inquire into the Bill, and there was no reason to believe that they would report in any direction but that of opposition to the Bill. He firmly believed that the best interests of the public and of the profession would be served by setting aside the present Bill.

Dr. RENTOUL said that the Medical Act of 1886 required those who practised midwifery to possess a qualification in medicine and surgery as well. This Bill was an endeavour to break through the spirit of that Act. The General Medical Council had laid it down that a student must study for at least five years, and fixes the minimum of knowledge which it was necessary for him to possess. This Bill wanted to educate the midwife in a few weeks or months, and enable her to claim fees in a court of law for all "natural labours"—that is, 990 out of every 1000 cases. The Bill could not make it penal if midwives attended abnormal cases, and it followed that the midwife ought to be competent to undertake cases in which delay threatened the life of the mother or infant. Under these circumstances she would require a full and complete training. In 1888 the report of the Registrar-General stated that 4160 died from "the accidents of childbed," most of whom lost their lives from complications arising from diseases of the heart, kidneys, or lungs. The midwife was not able to recognise these diseased conditions. Further, 30 per cent. of total blindness which affects persons in this country is due to infantile ophthalmia. There were not at present sufficient cases to supply both the medical student and the pupil midwife in midwifery. At the last session of the Council Dr. Glover moved that the minimum number of cases for each student should be thirty. To supply this number of cases to that number of students would require 51,990 cases. The voluntary medical charities gave relief

to 50,790 lying-in women. If both student and pupil midwife must be trained, then the deplorable system which at present exists in Liverpool, where the medical student and the pupil midwife attend the same case, or it would lead to that very grave state of affairs where several students go in a body to attend the one case. And by repeated examinations aggravate the sufferings of the women. He was afraid that in future the medical student might have to receive his practical education in obstetrics from a midwife. He urged, further, that it might lead to increase in the number of stillbirths. The promoters of the Bill urged that there were about 15,000 midwives practising in England. He questioned if there were 1000 certificated midwives. The last census showed only 3000 who wrote "midwife" after their names. He submitted that the poor did not require such treatment. The Poor Law aids something like 10,000 lying-in women yearly; the voluntary medical charities relieve 50,790. There were, further, the provident and semi-provident dispensaries, and, lastly, over 24,000 doctors, many of whom were willing to go out for a confinement fee varying from 7*s.* 6*d.* to 15*s.* He urged that this Bill should be opposed.

Dr. MANSELL MOULLIN then addressed his lordship on the statistics connected with the practice of midwives.

Mr. J. E. DUNN, representing the Preston Medico-Ethical Society, suggested that a select committee should be appointed to consider the whole matter, and that evidence should be taken from those persons directly conversant with the wants and requirements of the people.

Dr. LOVELL DRAGE of Hatfield took exception to the action of the Obstetrical Society in this matter. It was composed of 700 gentlemen more or less interested in the science of midwifery, but the council was practically self-elective. This subject had never been before the Society until last week, when the council had it forced upon them. By postcard it had been ascertained that out of the 700 members, only 151 were actually in favour of the Bill; while 185 had expressed themselves as against it, 6 were undecided, 17 in favour of the principle of registration, but objected to the Bill for various causes; 21 considered three months' education insufficient and preferred a longer period. At the debate which had recently taken place on the subject the council had not brought forward a single fact or figure to show that there was any necessity for legislation whatever, and for his own part he knew of none. He believed, from considerable experience in the subject, that no rules which human ingenuity could provide would ever keep one of these uneducated women in her proper sphere.

Dr. C. ILLINGWORTH, representing the Blackburn district, maintained that the poor were quite able to pay the moderate fees demanded by young practitioners. In cases of inability the Poor-law medical officer was always ready to attend to the mother.

Mr. PERCY DUNN read letters from Mr. Braxton Hicks and other coroners, stating that they had instructed registrars of deaths to forward to him all midwives' certificates of stillbirths in order that the matter may be inquired into. They were of opinion that if midwives were registered, stillbirths should also be registered.

The LORD PRESIDENT of the COUNCIL was obliged for the fulness with which the matter had been brought before him. They were quite aware that this was not a Government Bill. It was a private member's Bill, for which the Government was not responsible, and he presumed that in addressing him on the subject they did so on account of his having some connexion with the General Medical Council, and, as such, he was supposed to have some interest in the matter, and the Privy Council became an important functionary under this Bill. At the same time there was no Government support to the Bill at present. He was a little puzzled, he frankly owned, as to the speeches of some of the members who had addressed him. Differences of opinion existed. On the one hand, the gentleman who had addressed him first spoke with some pride of the examinations which take place in Ireland, and that it was an advantage that such should be the case. On the other hand, Dr. Rentoul was rather for ending the midwives than for mending them. In Ireland they seemed to have the idea of mending them. Dr. Rentoul said that unless they became medical practitioners under the Medical Act, and qualified in medicine and surgery as well as in midwifery, they should not be taken any notice of, and he understood from that that he would rather that things were left as they were, and that midwives should not be recognised in any way. He understood that now there was no woman in the country who could not set up a midwife's establishment; there was no restriction on the part of law or any educational qualification to hinder her from setting up a midwifery business without any inquiry whatever. So far as the present state of things was concerned he could quite understand that many persons might suppose that it would be an advantage to give some education, even a smaller education, that would make more efficient those who could practise now, whether they were educated or not. However, what he gathered generally was that they entirely condemned this Bill, and that some of them were in favour of a general inquiry into the subject of midwifery in this country, whether in connexion with a Bill or not, or for a general inquiry upon the whole question before any Bill was introduced at all. That was a matter for grave consideration. Parliament was not very fond of taking up subjects in that sort of way without some pressure of immediate legislation, and so far as he was concerned there, he certainly, after hearing the powerful arguments which had been placed before him on the part of the profession, would say that, at any rate, he should defer offering any support to the Bill on the present occasion, and he might moreover say on the part of the Government that they would not support it.

After thanking his lordship the deputation then withdrew.

PUBLIC HEALTH AND THE LAND QUESTION.

A LECTURE delivered by Dr. George Homan, Secretary of the Missouri State Board of Health, Professor of Hygiene and Forensic Medicine at the St. Louis Medical College, on Public Health and the Land Question, has been published and circulated broadcast. It is an eloquent appeal in favour of land nationalisation as the best means of putting an end to the overcrowding and to the slums and rookeries that are a danger and a disgrace to the great towns and industrial centres of the civilised world. While leaving to political economists and to politicians the task of meeting the claim, pressed forward daily with more and more energy, in favour of land nationalisation, we may at least say that medical men, by reason of the practical experience they acquire while ministering to the needs of the sick poor, are especially fitted to discuss these grave social problems. Indeed, if we study the composition of the various parliaments of Europe, we shall find that among the most advanced and the most energetic social reformers an exceptionally large proportion belong to the medical profession. Dr. Homan commences his lecture by quoting the saying of the Indian chieftain: "The sun is my father; the earth is my mother; I will repose on her bosom." And then goes on to recall the classic legend of Antæus, son of the sea and the earth, who, when felled in conflict, at once received new strength each time he laid prostrate on the earth. From these legends Dr. Homan claims for every human being his share of mother earth, and argues that, by the monopolies of what natural laws intended as the property of all, we have created the unnatural overcrowding of our great cities, with all the attending evils that this begets. Leaving Dr. Homan to fight out this theory as best he may, we would cordially endorse his strong protest against the overcrowding of the tenement-houses in the great cities of America. Even in the Far West, at St. Louis, the death-rate of children under five years is equal to 40 per cent. of the total mortality. Yet St. Louis boasts of being one of the healthiest towns of its size that exist. If we go east to the larger cities, we find a much worse state of affairs. This, for instance, is what the Rev. F. D. Huntington, Bishop of New York, says about the commercial capital of the United States:—

"A civilisation which overtasks or underpays wage-workers in order to add superfluous affluence and irresponsible power to the estates of a few; which helps a hundredth part of the population to own half of the property; which exposes innumerable women to moral ruin for a living; which drives pale and emaciated and rickety children daily from pestilential tenements to factories and mines; which countenances an owner of real estate who has pocketed 4,000,000 dols. by the rental of four nests of misery and dens of vice five storeys high; which lets 15,000

children die within a year after they were born in these cellars and garrets, without uttering a sound of indignation or alarm; which robs the citizen of his independence and manliness, enslaving him by fear or want to a landlord or employer; which increases the rate of suicide and insanity every year,—this, truly, is not a civilisation for any conscientious, thinking man to be proud of."

Dr. Homan remarks that among these crowded and oppressed populations a very high birth-rate prevails. This he attributes to an effort on the part of nature to meet the enormous waste of life so that a margin may remain to prevent complete extinction; but he protests that the vital and moral quality of offspring thus produced gravely endanger society. Tenement districts are known to police officials as nurseries of crime, as they are known to sanitary authorities as breeding-places of disease. "Those who do not perish early in life only live to become stunted, and crippled, and deformed in body or in mind, or both, and usually, sooner or later, become inmates of hospitals, reformatories, poorhouses, or prisons." Very truly, the lecturer goes on to complain that some degree of alarm and spasmodic activity in the way of arrest and prevention is occasionally manifested when cholera seems to be marching round the world, or Oriental plague breaks out in Russia, or some other epidemic menaces public health. But the influence of such epidemics on the general death-rate is really insignificant "when compared with the eternal gnawing at the population, at the bone and sinew, by diseases that are domesticated in all civilised lands mainly through the existence of conditions contraband alike of the common health, the common safety, common justice, and common humanity."

Dr. Homan then repeats what has so often been demonstrated before—namely, that these overcrowded districts are foci of epidemic disease which cannot be stamped out, but which will spread from the poor to the rich. He then eloquently urges:—

"It is well that breaches of natural laws bring their own punishment, be it slow or swift, as the case may be; that the superstition which would lean on miraculous power to stay the march of disease finds scant support to-day; that water will wet and fire will burn those who fall into them; that faith can stop neither bullets nor bacteria; that if we continually grow and sow the seeds of disease and death we shall just as surely reap the appointed harvest, for in no other way, perhaps, can the blind and selfish greed of man be taught the exceeding gain of justice and fairness, the profit of right doing to all."

PHOTOGRAPHING IN COLOURS.

THE invention which has recently been announced from Paris, of a method of communicating colour to a sensitive photographic film by the action of a ray of coloured light, will, if confirmed, awaken very widespread interest, for it is impossible to foresee all the applications to which such a discovery might be expected eventually to lend itself. The idea is credited to M. Lipmann, a professor of the Sorbonne and a physicist whose name is already widely and favourably known in connexion with some highly ingenious instruments of physical research. The theory which he is said to have successfully embodied in experiment is that the interference of two rays of light of the same wave length may be caused to produce a characteristic effect upon a sensitive film such as amounts to dyeing the film of the particular hue in question. So far as has at present been explained, the process appears to depend upon the doctrine that the chemical action, like the chromatic properties, of a ray of light is capable of being affected by the conditions which give rise to the phenomena of interference. In itself this seems likely enough. It is well known that if two rays of light having the same wave length travel along the same path simultaneously, they interfere with one another. It may and does happen that at certain points along the path, depending for their position on the wave length, the two impulses tend to counteract and at other points to reinforce one another. A luminiferous particle—whatever that may be—which is acted upon by two opposing forces will remain at rest if the forces are equal as well as opposite; while if the forces be not equal or not directly opposed, there will be some resulting disturbance, but still a disturbance different from that which would have been produced by either of the coincident forces acting alone. From this cause arise all those beautiful optical effects of interference which so strikingly illustrate the undulatory theory of light. Now, if it be a fact that the chemical activity of a ray of light is subject to the same law, and can be either exalted or depressed by causing a second ray of the same wave length to act upon the sensitive reagent, it is quite conceivable that a pair of rays of light might be so directed through a photographic film as to cause, not a uniform, but a sporadic deposit of the precipitated element. These minute deposits would in that case be distributed at definite distances apart along the line of the common path of the active rays, because they would mark the points of coöperating and therefore exalted activity. Similarly, their intervals would occupy the spaces in which the antagonism of the two rays had reduced or even destroyed the actinic effect. Now such a film would apparently be opaque to any light not having this particular wave length, because at some point it would necessarily be absorbed by the opaque deposit. But if a ray of the same wave length impinged, it might be able to pick its way successfully between the deposits. Professor Lipmann is said to have produced such a film by the expedient of placing a mirror at the back of his sensitive plate and causing the focused ray to return along its own path. The mirror is produced by making the plate one side of a mercury trough, which when filled constitutes a mirror in exactly the desired position. The expedient, if successful, is certainly charmingly simple, and, seeing that the healing art would undoubtedly benefit in as high a degree as any by a practicable system of chromatic photography, we look with lively interest for some further information upon the theory and practice so ingeniously originated.

VIRCHOW TESTIMONIAL FUND.

THE following is the list of the committee of the above Fund:—

Henry W. Acland (Oxford), Th. Clifford Allbutt, John Banks (Dublin), W. Mitchell Banks (Liverpool), H. G. Barling (Birmingham), A. Barron, M.B. (Liverpool), H. C. Bastian, Wm. Bowman, J. S. Bristowe, W. H. Broadbent, Th. Lauder Brunton (treasurer), Th. Bryant, H. T. Butlin, J. Chiene (Edinburgh), Andrew Clark, J. Coats (Glasgow), S. Coupland, J. Dreschfeld (Manchester), Dyce Duckworth, John Evans, Joseph Fayrer, D. Ferrier, W. H. Flower, M. Foster (Cambridge), W. T. Gairdner (Glasgow), Alfred Garrod, W. S. Greenfield (Edinburgh), F. de Havilland Hall, D. S. Hamilton (Aberdeen), T. Holmes, G. M. Humphry (Cambridge), J. Hutchinson, J. Hughlings Jackson, William Jenner, George Johnson, Joseph Lister, William MacCormac, Th. Oliver (Newcastle-on-Tyne), W. M. Ord, Richard Quain, George Paget (Cambridge), James Paget (chairman), F. W. Pavy, George Porter (Dublin), R. Douglas Powell, J. Russell Reynolds, William Roberts, Ch. S. Roy (Cambridge), T. Burdon Sanderson (Oxford), E. A. Schäfer, S. G. Shattock, John Simon, A. R. Simpson (Edinburgh), E. M. Skerritt (Clifton, Bristol), Th. Grainger Stewart (Edinburgh), William Stokes (Dublin), Octavius Sturges, Th. Pridgin Teale (Leeds), William Turner (Edinburgh), Hermann Weber, Spencer Wells, C. S. Wheelhouse (Leeds), Samuel Wilks, A. H. Young (Manchester).

The following additional subscriptions have been received:

	£	s.	d.		£	s.	d.
Sir William Jenner, Bart.	2	2	0	Sir John Banks, M.D. ..	2	2	0
Sir Wm. Bowman, Bart.	2	2	0	C. G. Wheelhouse,			
Sir William Roberts, M.D.	2	2	0	F.R.C.S.	2	2	0
William Gairdner, M.D.	2	2	0	W. Broadbent, M.D. ..	2	2	0
Angel Money, M.D.	1	1	0	S. Wilks, M.D.	1	1	0
Adolf Bronner, M.D. ..	1	1	0	C. Theodore Williams,			
Bilton Pollard, M.D. ..	1	1	0	M.D.	2	2	0
P. E. Karkeek, M.R.C.S.	0	10	6	Robert W. Philip, M.D. ..	1	1	0
Heinrich Port, M.D. ..	2	2	0	F. de Havilland Hall, M.D.	1	1	0
A. Barron, M.B., M.R.C.S.	2	2	0	Percy Kidd, M.D.	1	1	0
W. Ewart, M.D.	2	2	0	Charles Coates, M.D. ..	2	2	0
E. Clifford Beale, M.B. ..	1	1	0	Octavius Sturges, M.B. ..	1	1	0

SOUTHERN HOSPITAL NEW NURSES' HOME.—Last Saturday afternoon the ceremony of opening the Nurses' Home attached to the Southern Hospital was performed by Mrs. G. H. Horsfall, in the presence of a large and distinguished company.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6321 births and 3818 deaths were registered during the week ending Feb. 14th. The annual rate of mortality in these towns, which had steadily declined from 28·7 to 19·8 per 1000 in the preceding six weeks, was last week 19·9. The rate was 19·4 in London and 20·3 in the twenty-seven provincial towns. During the past six weeks of the current quarter the death-rate in the twenty-eight towns averaged 23·8 per 1000, and exceeded by 0·5 the mean rate in the corresponding periods of the ten years 1881-90. The lowest rates in these towns last week were 14·2 in Leicester, 15·5 in Portsmouth, 16·1 in Wolverhampton, and 16·3 in Halifax; the highest rates were 25·3 in Cardiff and in Blackburn, 25·8 in Derby, and 28·5 in Preston. The deaths referred to the principal zymotic diseases, which had declined from 404 to 332 in the preceding three weeks, rose again last week to 340; they included 93 from whooping-cough, 77 from measles, 52 from scarlet fever, 50 from diphtheria, 36 from diarrhœa, 32 from "fever" (principally enteric), and not one from small-pox. The lowest rates from these zymotic diseases were recorded in Portsmouth, Cardiff, Derby, and Oldham; and the highest in Plymouth, Blackburn, Preston, Salford, and Huddersfield. The greatest mortality from measles occurred in Brighton, Halifax, Huddersfield, Blackburn, and Bristol; from scarlet fever in Plymouth, Preston, and Bradford; and from whooping-cough in Salford, Plymouth, Birkenhead, and Huddersfield. The mortality from "fever" showed no marked excess in any of the large towns. The 50 deaths from diphtheria included 29 in London, 4 in Sheffield, 3 in Manchester, and 3 in Salford. No death from small-pox was registered in any of the twenty-eight towns, and no small-pox patients were under treatment in the Metropolitan Asylum Hospitals on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1310, and showed a further decline from recent weekly numbers; the patients admitted during the week were 97, against 112 and 107 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 1018 to 428 in the preceding four weeks, rose again last week to 484, but were 42 below the corrected average. The causes of 70, or 1·8 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Norwich, Bradford, Newcastle-upon-Tyne, and in three smaller towns. The largest proportions of uncertified deaths were recorded in Sheffield, Liverpool, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·4 and 21·9 per 1000 in the preceding two weeks, further declined to 21·4 during the week ending Feb. 14th, but exceeded by 1·5 the rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 11·6 in Greenock and 12·3 in Perth to 21·1 in Edinburgh and 26·6 in Glasgow. The 561 deaths in these eight towns showed a decline of 13 from the number in the preceding week, and included 13 which were referred to whooping-cough, 11 to diarrhœa, 10 to measles, 6 to scarlet fever, 6 to "fever," 4 to diphtheria, and not one to small-pox. In all, 50 deaths resulted from these principal zymotic diseases, against numbers declining from 76 to 57 in the preceding three weeks. These 50 deaths were equal to an annual rate of 1·9 per 1000, which slightly exceeded the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 29 and 17 in the preceding two weeks, further declined last week to 13, of which 5 occurred in Glasgow and 4 in Edinburgh. The 11 deaths from diarrhœa exceeded those recorded in any recent week, and included 7 in Glasgow. The fatal cases of measles, which had been 8 and 6 in the previous two weeks, rose again to 10 last week, of which 6 occurred in Paisley and 4 in Glasgow. The 6 deaths from scarlet fever corresponded with the number in the previous week, and included 3 in Glasgow and 3 in Edinburgh. The 6 fatal cases of "fever" showed a decline of 3 from the number in the preceding week: 3 occurred in Dundee. The 4 deaths from diphtheria were fewer than in any previous week of this year, and included 3 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 228 to 161 in the preceding four weeks, further fell last week to 138, and were 57 below the number in the corresponding week of last year. The causes of 51, or more than 9 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 38·4 to 26·6 per 1000, rose again to 26·9 during the week ending Feb. 14th. During the first six weeks of the current quarter the death-rate in the city averaged 32·9 per 1000, the rate for the same period being 24·1 in London and 21·0 in Edinburgh. The 182 deaths in Dublin showed a slight increase upon the number in the preceding week, and included 2 which resulted from "fever," 1 from diphtheria, and not one either from small-pox, measles, scarlet fever, whooping-cough, or diarrhœa. Thus the deaths referred to the principal zymotic diseases, which had been 6 and 7 in the preceding two weeks, declined again to 3 last week, a smaller number than has been registered in any week on record; they were equal to 0·4 per 1000, the rate from the same diseases being 1·4 in London and 2·3 in Edinburgh. The fatal cases of "fever," which had been 5, 4, and 3 in the preceding three weeks, further declined to 2 last week, and were fewer than in any week since November last. One death resulted from diphtheria, corresponding with the number in each of the previous two weeks. The 182 deaths in Dublin last week included 28 of infants under one year of age and 68 of persons aged upwards of sixty years; the deaths of infants showed a further decline from those recorded in recent weeks, while those of elderly persons showed an increase. Two inquest cases and 1 death from violence were registered; and 68, or more than a third, of the deaths occurred in public institutions. The causes of 12, or nearly 7 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon Geo. Elmsly Will to be Deputy Surgeon-General, ranking as Colonel, vice C. G. Irwin, M.B., placed on retired pay (dated Jan. 4th, 1891); Surgeon-Major Robert Collins, M.B., ranking as Lieutenant-Colonel, to be Brigade Surgeon, vice G. E. Will (dated Jan. 4th, 1891); Surgeon William Parsons Feltham to be Surgeon-Major, ranking as Major (dated Jan. 29th, 1891).

BENGAL MEDICAL ESTABLISHMENT.—Surgeon George Augustus Cones to be Surgeon-Major (dated Dec. 13th, 1890).

INDIAN ARMY.—The Queen has approved of the restoration of the undermentioned Officer from the half-pay list to the effective list: Surgeon-Major David John McCarthy, M.D, Madras Medical Establishment (dated Dec. 6th, 1890).—The Queen has also approved of the retirement from the Service of the undermentioned Officer: Surgeon-Major John Wilson Johnston, M.D., Bengal Medical Establishment (dated Feb. 4th, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Fleet Surgeon Charles C. Godding to the *Vernon* (dated Feb. 14th, 1891); Staff Surgeon John Wilson, M.A., M.D., to Chatham Hospital (dated Feb. 14th, 1891); Surgeon E. A. Spiller, M.D., to the *Excellent*, additional (dated Feb. 28th, 1891); Surgeon Jas. Menary, M.D., to Jamaica Hospital, (dated Feb. 18th, 1891); Surgeon James M. Rogers to the *Urgent* (undated); Mr. John Archibald Macquarie to be Surgeon and Agent at Peel, Isle of Man; Mr. Henry Bell to be Surgeon and Agent at Bangor (county Down), Groomsport, and Helen's Bay (dated Feb. 17th, 1891).

VOLUNTEER CORPS.—*Infantry:* Western Counties: Surgeon and Surgeon-Major F. F. Lee, M.B., 1st Wiltshire Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Feb. 18th, 1891).—*Artillery:* 3rd Kent (Royal Arsenal): Surgeon S. Davies, M.D., from

the Volunteer Medical Staff Corps (Woolwich Division) to be Surgeon (dated Jan. 7th, 1891).—1st Lanarkshire: Acting Surgeon W. J. Shaw, M.B., resigns his appointment (dated Feb. 14th, 1891).—3rd Durham (Western Division, Royal Artillery): Acting Surgeon W. Gowans to be Captain (dated Feb. 14th, 1891).—*Rifle:* 4th Volunteer Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon T. Lyndon, M.D., to be Surgeon (dated Feb. 14th, 1891).—3rd Volunteer Battalion, the Royal Fusiliers (City of London Regiment): Acting Surgeon E. G. Younger, M.D., to be Surgeon (dated Feb. 14th, 1891).—24th Middlesex: Acting Surgeon J. D. Grant, M.D., to be Surgeon (dated Feb. 14th, 1891).

VOLUNTEER MEDICAL STAFF CORPS.—The Woolwich Division: Alexander Stevenson Greenway, M.D., to be Acting Surgeon, Supernumerary (dated Feb. 14th, 1891).

Correspondence.

"Audi alteram partem."

ENGLISH MEDICAL PRACTICE IN PARIS.

To the Editors of THE LANCET.

SIRS,—An article which appeared in *Galignani's Messenger* of the 27th ult., and which, as will be seen, deals with a subject that directly interests the English travelling public, has excited much comment in both lay and professional circles in Paris. It has further served the purpose of arousing English practitioners established in this city to a sense of a duty, hitherto neglected, towards themselves and towards their compatriots who, in their thousands, throng the Boulevards of this gay capital during *la belle saison*. The article runs as follows:—

"Several cases have been again brought before our notice of English and American visitors to Paris, who, upon being taken ill, in second-rate hotels or boarding-houses, have found, on the part of the proprietors or managers of their temporary resting-places, an extraordinary ignorance as to the residence or even existence of physicians of the same nationality as their guests. Some of these cases have been of so flagrant a character that they would lead to the belief that the managers recommend a certain class of French doctors 'for a consideration.' We say a certain class, because there are French medical celebrities to consult whom would be well worth a long voyage. But these are not men at all likely to lend themselves to the abuses complained of. The misfortune, therefore, is generally that of the sick person, although the fault may be somewhat that of the English and American physicians. In England, we all know it is considered *infra dig.* for medical men to advertise themselves. That rule does no harm in England, where people have frequent recourse to an authentic medical directory or to the recommendation of reliable friends. But in Paris, where the population is as changeable as that of a large hotel, it would appear that the medical men would lose none of their dignity were they to find some means of advertising, at least, their names and addresses with their authenticated degrees, and, when such is the case, the special branch of medicine to which they devote their attention. Medical men are too often looked upon as persons who are obliged to attend anybody who demands their care, and there is probably no body of professional men who render so much gratuitous service to their fellows in such an unostentatious way. Still, they have to live by their profession just as have lawyers and priests. Surely they might well be allowed to advertise in this great caravanserai, especially as the facts set before the travelling public would be for the public benefit."

The above remarks, emanating as they do from the recognised organ of the English colony in Paris, and from a journal which has, moreover, repeatedly rendered yeoman service in warning travellers against that pest, the "hotel doctor," merit something more than a passing consideration. Acknowledging, with the rest of my colleagues, the truth of the facts stated, I have felt it my duty to bring the matter to the notice of my professional brethren, with a view of bringing about some combined action to remedy the evils complained of. Travellers little dream of the existence of the occult arrangements that too often hamper them in their choice of a medical attendant. Rightly or wrongly, the average ailing Briton prefers to be attended by an English practitioner, who, imbued with the traditional doctrines of British schools of medicine, understands his habits, tastes, and prejudices. But, even when the landlord consents to summon an English doctor, the independence of the latter is too often fettered by conditions which are not calculated to increase his self-respect, not to mention his income. Thus, at a certain first-class hotel, the landlord, to my knowledge, exacts from the unfortunate medico no less than 25 per cent. of the fees earned at his establishment. Again, I have known of a gentleman staying at a well-known hotel on the Boulevards, upon whom it was unsuccessfully attempted to foist the no doubt subsidising hotel doctor, the practitioner whose services he had wished to secure never having even received the message sent. Analogous instances could, doubtless, be multiplied *ad infinitum*. Take, again, the chemist, on whom devolves very frequently the choice, for a customer, of an English doctor. Of course, the chemist cannot be debarred from exercising his right to recommend any one practitioner. But when one of his assistants, on being asked for the address of an English doctor established in Paris for nearly twenty years, deliberately ignores his existence, I think it is time the public should be made independent of such misleading information.

The facts being as above, I venture to ask you, Sirs, if the periodical publication, in one or more respectable journals, of a list of English doctors practising in Paris, with their addresses and hours of consultation (the names arranged alphabetically and no degrees or specialties mentioned), would necessarily constitute a contravention of the unwritten rule observed by all self-respecting members of the profession forbidding advertising. Such a list would prove of great service to English visitors to this city, and, if made comprehensive, would not, in my opinion, come under the head of advertising in the invidious acceptation of the word.

I am, Sirs, your obedient servant,

Paris, Feb. 10th, 1891. J. H. BARNARD.

EMPYEMA OF THE ANTRUM.

To the Editors of THE LANCET.

SIRS,—Mr. Sewill has done good service by drawing attention to the above subject. May I be permitted to contribute my experience?

During the present session I have had several cases of septic abscess of the antrum in my wards in the Edinburgh Royal Infirmary. The following points I think are worthy of note:—1. In every case the empyema was connected with a diseased anterior molar. 2. In most of the cases the anterior molars were not known to be the cause of the empyema till they were extracted. The teeth were free from caries, and were drawn simply in order that a free drain might be established. When removed they were found in every instance to have had suppuration at one or more of their fangs, which were also protruding into the antrum.

I consider that it is not sufficient to extract the tooth. The opening left by the protruding fang is not large enough for free drainage and washing out; I always enlarge the opening considerably. This practice I learned from Mr. G. W. Watson, dentist, of this city, and I consider it a very important part of the treatment. I make my patients wash out the antrum themselves from their mouths. They take a mouthful of boric lotion first and rinse out the mouth. Then another mouthful is forced up into the antrum and out by the nose, the process being continued until the lotion flows clear. This manœuvre can be learned after a little practice, and enables the patient to wash out the antrum twenty times a day if necessary, without much trouble. I consider that the extraction of an anterior molar gives a better drain than an opening above the alveolar margin. The latter method I adopted on two occasions at the request of a colleague, and in both cases had to extract the tooth afterwards, and found it the apparent cause of the trouble. I think that no surgical treatment is required in abscess of the antrum, unless it becomes septic or is due to a bad tooth.—I am, Sirs, yours obediently,

Edinburgh, Feb. 14th, 1891. A. G. MILLER.

To the Editors of THE LANCET.

SIRS,—Those who have opportunities of studying the disease which forms the subject of Mr. Sewill's important letter in your issue of the 14th inst. cannot but feel indebted to him for bringing the matter before the notice of the profession. I fully agree with him that the affection is often overlooked, and that not only by general practitioners, but by surgeons and specialists. I am the more fully persuaded of this in that I question Mr. Sewill's statement that dental disease is the commonest cause. Not, Sirs, that I would doubt for a moment the rectitude of his observations in his own cases. All that I would maintain is that the large proportion of cases falling within my own practice is associated with, and, as I

believe, is secondary to, intra-nasal suppuration of one kind or another. I am of opinion, moreover, that it is actually the coexistence of nose disease, such as might be held to account for all the symptoms, which has often prevented any question arising as to a possible implication of the antrum. Having diagnosed and treated upwards of forty cases, I can affirm that of these only four were unassociated with intra-nasal suppuration, the latter being generally connected with ethmoidal disease. Many were operated upon by my colleague, Mr. Leonard Matheson, who, I believe, will be prepared to corroborate my statement as to the rarity, in my cases, of tooth trouble which could be considered responsible for the mischief. I must not occupy more space by adducing further arguments, though I may add that I have discussed the question fully in my treatise on "Diseases of the Nose," since the publication of which I have become even more fully convinced of the nasal origin of the larger number of cases. And in this view I am supported by such authorities as Zuckerkandl, Hartmann, Krause, Gougenheim, Baratoux, and others. I most fully concur in Mr. Sewill's remarks as to the treatment of the affection; yet I should like to suggest to him the introduction of Ellis's smallest sized spiral drainage-tube, instead of the gold tube and supporting plate advocated in his letter. Ellis's tube fulfils every requirement, is self-retaining, can be easily removed and replaced by the patient, and may be prevented from slipping in too far by uncoiling the termination of the wire. Mr. Matheson finds this in every case efficient.

I am, Sirs, yours faithfully,

Harley-street, W., Feb. 16th, 1891. GREVILLE MACDONALD.

THE CLIMATE OF GRASSE.

To the Editors of THE LANCET.

SIRS,—As Her Majesty the Queen is about to sojourn at Grasse, some account of its climate and attractions may not be uninteresting to your readers. Towards the end of last March, with the object of collecting information for my recent work, "Book of Climates," second edition, I spent a week exploring the country between Cannes and the mountains to the north and away to the Esterels which bound the plain to the west. On this plain, which for variety and scenic beauty is not surpassed either at home or abroad, and on the sunny slope of Mount Rocavignon, at an elevation of 1100 ft. above the sea, lies the picturesque, old-fashioned, crooked, and crowded little city of Grasse. Rich in historic and Napoleonic traditions, quiet and sequestered in situation, having great facilities for driving excursions, and possessing lovely views, good water, and a pure and tonic air, Grasse has many attractions for those in need of calm and repose. Beautiful roads lead in all directions, of which that to Cesaire, nine miles to the west, and others in the neighbourhood, afford delightful views of the sea, and is deserving of mention. The chief industry of the people, of whom there are 12,000, is the distillation of the attar of rose and Neroli perfumes, the flowers for which are grown all over the district.

The climate is said to be colder than that of Cannes, which is about 9° or 10° higher than London. It did not, however, appear so to me, but the contrary. The heavy rains which generally occur in March had ceased, the trees were bursting into leaf, and though there was a certain touch of keenness in the air, there was no mistral, and the wind was far less felt than either at Cannes or Antibes. The mistral often blows over the district in March. Having a sunny aspect, and being well sheltered by mountains close behind, I believe that in the daytime the climate is milder than that of Cannes, and the air more still. At night, however, and when the sun goes down, the cold is greater.

Grasse ought to have a future before it. There is a need for a resort differing in many respects from the Rivierian seaside stations, and yet possessing all the sheltered sunshine of this region. From these stations it should afford a pleasant change, especially when they are too exciting, or amongst those bilious or dyspeptic folks to whose appetite the sea-air is injurious.

Grasse should also be a good place for persons suffering from asthma, chronic pleurisy, chronic consumption, and heart disease, who cannot stand the winds of the coast, also for gouty and lupoid cutaneous affections, rheumatism, and diabetes. It is, however, such a dull place that all but the most conscientious invalid would soon get tired of it. There are two good and moderate hotels.

I am, Sirs, your obedient servant,

D. H. CULLIMORE, M.D., M.R.C.P.Lond.

Welbeck-street, W., Feb. 19th, 1891.

"INTESTINAL IMPLANTATION AND LATERAL APPOSITION."

To the Editors of THE LANCET.

SIRS,—My thanks are due to my friend Mr. Reeves for his letter which appeared in last week's issue of THE LANCET (page 396) on the above subject. It is only by combined efforts that surgeons can hope to establish in this country the importance of such operations as have been taught by Professor Senn in America, the correctness of whose conclusions I have confirmed. The difficulties of establishing such operations as Prof. Senn and myself wish to impress upon the profession are very great, and this must be obvious, as the amount of material that falls to the lot of one surgeon is comparatively small. It is only by acting as Mr. Reeves has done that we may hope to decide if any new operation of magnitude is worthy of the support of the profession or not. These operations are now going through the same stages as other great advances in surgery have done before. It is not many years since Sir Spencer Wells placed ovariotomy on a sound and permanent footing. In the early days of this operation, at a meeting of one of the societies ovariotomy was characterised as barbarous, and I believe the dire consequences of the coroner's inquiry were threatened to the surgeon who should lose a patient after performing such an operation. I am reminded by Dr. W. Duncan in last week's issue, page 395, that Sir Joseph Lister, when advocating and practising opening the knee-joint in cases of chronic inflammation in order to remove the diseased parts, a well-known surgeon threatened, in the event of a fatal case occurring, that the distinguished operator might find himself in the dock on a criminal charge.

It was only in 1878 that the late Dr. Marion Sims first performed cholecystotomy, and, although his case ended fatally, yet the steps he laid down for its performance were so clear that now it is admitted to be one of the most successful operations in surgery. The different operations now so successfully practised upon the kidney were, when first introduced to the profession, looked upon with anything but favour, and it was only by the enterprise of such men as Messrs. Morris and Knowsley Thornton that they became thoroughly established. Mr. Reeves in his letter says the onus of showing the profession that the new intestinal operations are as easily executed and safe in results as already accepted means, rests with Dr. Senn and myself. I am perfectly willing to accept the responsibility, but in the space of a letter it is impossible to go further than to generalise, and difficult to formulate evidence of the feasibility of operations on the stomach and intestines by implantation, or lateral apposition by means of approximation plates. I have now performed five cases of gastro-enterostomy by the latter method, four for pyloric carcinoma, and one for fibrous stricture of the pylorus. Three of these made good recoveries, one (the first) died five days after operation from exhaustion due to the error of not feeding early enough (the operation in this case was perfect, as shown by the pathological specimen which I have), one case died of septic peritonitis directly the result of the operation. Besides these, cases have been reported by Dr. Clarke (Huddersfield), Mr. Mayo Robson (Leeds), Mr. Stansfield (Birkenhead), Mr. Beatson (Glasgow), and others. Dr. Weir reports in the *Medical News* (N.Y.), Dec. 14th, 1889, p. 663, eleven cases of gastro-enterostomy with but one death. The number of cases of ileo-colostomy already reported are, I believe, limited to five. Two of these are reported by Senn in the *Journal of the American Medical Association*, Jan. 14th, 1890. In these cases Senn performed resection of the cæcum for carcinoma, and united the ileum to the colon below the seat of disease by lateral apposition and bone plates; he inverted and closed the divided end of the colon. One of these cases recovered, and the other died six days after the operation from peritonitis caused by deep ulcers of the excluded portion of the colon. At the post-mortem examination he found the coaptated parts with adjacent portion of the colon and

ileum, the serous surfaces, which had been included between the plates, firmly adherent throughout, and on connecting a hydrant a large stream of water escaped from the gut, showing that the new opening was fully established, and on closing the open end of the colon the bowel was forcibly distended without causing leakage, a positive proof that union between the coaptated surfaces was perfect. Mr. Burton (Liverpool) has communicated to me a case in which he performed ileo-colostomy, at my suggestion, on a patient who was suffering from a fæcal fistula opening between some portion of the small intestine and the vagina. The operation was successfully performed by bringing into apposition a portion of the ileum with the colon by means of bone plates. The case of ileo-colostomy reported by me in your last week's issue I claim as a surgical success, and the case which, through the courtesy of Mr. Reeves, I was enabled to assist him in, and to which he alluded in his letter, may also be quoted as one proving the practicability and success attending ileo-colostomy by implantation.

I thoroughly endorse what Mr. Reeves states, "that operations and surgeons must be judged by results, and all operations on the intestinal canal are no exception to this wholesome rule"; and I ask my *confrères* to assist me in establishing these operations, which I most firmly believe will at no distant date be acknowledged to be one of the greatest boons to the human race, and among the most successful operations in surgery, by giving me the opportunity of seeing any cases of intestinal obstruction, either of an acute form or the result of new growths, that may come under their notice, also any cases of fæcal fistula of an intractable character. The number of successful cases of gastro-enterostomy, which is quite as difficult and dangerous an operation as ileo-colostomy, or union of the small intestine by lateral apposition, if not more so, should in my opinion be sufficient to instil confidence in the minds of the profession, and tend to justify them in advising their patients who may be suffering from intestinal obstruction to seek surgical aid of the description I have advocated.

I am, Sirs, yours faithfully,

FRED. BOWREMAN JESSETT.

Upper Wimpole street, W., Feb. 14th, 1891.

THE DEBATE ON TYPHLITIS AT THE CLINICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—The clumsiness of my remarks during the recent discussion at the Clinical Society has, I understand, given rise to some misconception as to my meaning, which I should be glad if you would permit me to correct. I did not intend to imply that I am opposed to operative interference in the treatment of typhlitis. I have, indeed, advocated this mode of treatment in a manner that may have appeared to some to be even immoderate. There can be no possible question as to the urgent need for the surgeon's knife in *certain* forms of the acute type of the disease, and I have seen no cause to regret the freedom with which I have employed this means. With regard to the treatment of relapsing typhlitis by excision of the appendix during a quiescent period, nothing has occurred to alter the opinions I expressed upon that point when I first introduced this method of dealing with that affection in 1887. My list of cases is not small, nor have the results been unsatisfactory. What, however, I wish to protest against is the quiet assumption that all cases of typhlitis, and even those which are distinctly acute, demand surgical treatment, and that in the majority of instances at least medical measures avail little. I have shown elsewhere that the majority of examples of what is known as acute typhlitis end in recovery under simple medical treatment, and that a surgical handling of the trouble is only called for in a comparatively few selected cases, and that even in these it is possible to clamour for a too early operation. There are cases of appendicitis and cases of relapsing typhlitis which get well without the surgeon's aid, and I would urge that more discrimination should be exercised in selecting the cases which are suited for operation. The almost reckless and injudicious manner in which, to judge from published and private reports, the appendix is being excised at the present day, is doing a great deal to bring the operation into discredit, and to direct an adverse criticism against what is in suitable cases a most valuable and indeed indispensable measure. It would appear to be rather among American than among English surgeons that this epidemic is raging, and from the criticisms I have submitted I would exempt the very admirable series of cases upon which this particular debate is founded. Upon these cases the authors of the papers are to be congratulated, and I should be sorry if it were supposed that it is upon any of these reports that I would found an objection to that dogma which appears to consist of this one proposition—the patient has typhlitis, therefore excise his appendix.

I am, Sirs, yours faithfully,

Wimpole-street, W., Feb. 16th, 1891. FREDERICK TREVES.

"ERYSIPELAS AND TOTAL ABSTAINERS."

To the Editors of THE LANCET.

SIRS,—It would seem almost impossible to believe that Staff Surgeon Whitehead can have been really serious in inditing the letter on "Erysipelas and Total Abstainers" in your last issue. If ever there was a case of building a pyramid upside down this is one. Because three abstainers happen to have erysipelas at the same time we are asked to conclude that their abstinence must be a predisposing cause, and that it is detrimental both in hot and cold climates, in the face of all the evidence which has been accumulated to the contrary. I would challenge Mr. Whitehead to extend his observations and give us the result of the comparative sickness of the abstainers and non-abstainers in the London garrison for a period of twelve months, or longer if possible. Such comparisons have been made in other quarters. The days of sickness of the men in the abstaining friendly societies (Rechabites and Sons of Temperance) is only from one-half to two-thirds of that of the Oddfellows and Foresters (although these include many abstainers). Comparing 3978 abstainers and 8829 non-abstainers in various regiments in the Indian Army in 1885-86, it was found that the admissions to hospital were more than twice as great among the non-abstainers; the proportion invalided to the hills was 3·82 per cent. of the non-abstainers, and 1·88 per cent. of the abstainers; the proportion invalided to England was 2·93 per cent. of the former and 0·603 per cent. of the latter, the deaths per 1000 being 9·5 and 2·7 respectively. The results of the insurance companies prove to demonstration that this greater liability to disease results in a greater mortality among the non-abstainers. Mr. Whitehead speaks of the value of alcohol "as a heat-producing food." Is it possible that he is unaware that its invariable effect is to reduce the temperature, and that practical men in cold climates have found out that the colder it is the more injurious it is to take alcohol in any form? It lowers the vitality and renders the tissues more susceptible to the hurtful effect of cold. The evidence is so overwhelming on this point that it is superfluous to adduce it in detail. I have been able to find some explanation for this in the fact that alcohol, even in minute proportions, depresses the vital action of cell-protoplasm, while, on the other hand, in the same minute quantities, it promotes the multiplication and activity of bacilli. It will be found to reduce the activity of phagocytes and increase that of their antagonists. Its effect in promoting decomposition can be easily proved by putting a few drops of meat-juice, hay infusion, tartrate of ammonia, or anything which feeds bacteria, into two bottles, one containing water only, the other 1 part of alcohol to 1000 or even 10,000 of water. The latter will develop swarms of bacteria more thickly and more rapidly than the former. Whether or not this explains the facts of the superior health and longevity of abstainers (on the average, other things being the same) matters not; the facts remain, and "winna ding."

I am, Sirs, yours truly,

J. J. RIDGE, M.D.,

Hon. Sec., Brit. Med. Temperance Association.

Enfield, Feb. 16th, 1891.

THE TREATMENT OF CHRONIC DISEASE OF THE UTERINE APPENDAGES.

To the Editors of THE LANCET.

SIRS,—During the last two years I have watched the course of five cases in which I was consulted because the patients had been advised to have the uterine appendages removed, and thought it well to have a second opinion before submitting

to the operation, and in which the patients got perfectly well without any operation, two of them becoming pregnant. This seems to me a large number to occur in the practice of one physician, and makes me think that by some persons too unfavourable a view is taken of the prospect of recovery in cases of inflammation of the uterine appendages. I believe that the great majority of such cases get quite well without operation if properly treated. I do not think it likely that ovaries will be again removed for cardiac dyspnœa, and for this the profession is much indebted to Dr. Braithwaite of Leeds for his courage and candour in fully reporting the result of a case in which he did the operation for this condition.—I am, Sirs, yours faithfully,

Harley-street, Feb. 16th, 1891. G. ERNEST HERMAN.

THE PUPILAGE IN THE FIFTH YEAR OF MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—I beg to call your attention to a serious defect in the new arrangement of the General Medical Council, under which students may spend six months in the fifth year with a general practitioner. The serious defect is this, that no provision is made for the registration of such modified apprenticeship from the first day of its commencement. The result of this omission will be fatal to a fair trial of the new system, for practitioners will be found who will sign certificates for apprenticeships never served. It is enough of a flaw, and one to which official attention must be called, that an option is allowed to students to attend clinical wards which the Medical Council's visitors tell us are already unable to supply adequate means for training, and which in any case cannot supply the kind of training contemplated by the modified apprenticeship system. I will again appeal to the Privy Council on the whole subject.

I am, Sirs, yours truly,

Cashel, Feb. 12th, 1891. THOMAS LAFFAN.

MEDICAL NOTES IN THE ISLE OF MAN.

BY A FREQUENT VISITOR.

THE praises of the Isle of Man have been frequently heard, and are both sung and said in prose and song. Under the various names of Mona's Isle (or more classically Mona), Manxland, the Manx name "Ellan Vannin," or the cynical title of "Lilliput," articles, chapters, songs, and even books have been written. In spite of all this, it may yet be doubted whether the island is even now as well known as it should be as a desirable place of recreation for invalids at all times of the year, and especially in winter. There are, too, probably many persons who spend the winter in some distant Continental resort, far from all the comforts to which they have been accustomed, at great inconvenience and expense to themselves, who would find all they want in this charming island—a mild climate, beautiful coast and inland scenery, all the comforts to which they have been accustomed, and, should this be required, skilled medical attendance. The isolated character of this—like the Channel or Scilly Islands, the Orkneys, Shetlands, or Hebrides—places the resident medical practitioners at a disadvantage, since they cannot meet their professional brethren in such numbers and so frequently as those on the mainland. Where the whole number of medical men only reaches that of a small provincial city, anything like a medical society must be difficult to establish, and still more so to maintain. But there are now nearly thirty practitioners on the island, and if a medical society could be established in Douglas, much valuable information respecting the medical history of the island, the climate, its sanitation, the diseases most prevalent, &c., might be collected and published for the benefit of the profession. The following notes are from one who during the last thirty years has made many visits to the island, and has during that time—which comprises part of the reign of Governor Hope and the whole of those of Governors Loch and Walpole (the present governor)—seen vast improvements made throughout the whole island. It is, indeed, difficult to identify Douglas, Ramsey, and Peel with their appearances of thirty years ago. Port Erin and Port St Mary are comparatively new places. Castletown has not changed its appearance to the same extent, but considerable improvements have been effected in it. At present it may be well to note the more general features of medical interest in the island at large. Its situation is too well known to require notice here. Its proximity to Liverpool, Barrow, Fleetwood, and Whitehaven make it the resort of "cheap trippers" from Lancashire, Cheshire, and all parts of the kingdom. It has a short season, which generally includes the months of July and August, with June or September added, as the summer happens to be advanced or retarded. It is this reputation of a cheap trip resort which has deterred many persons, especially invalids, from going there. But the great bulk of cheap trippers arrive on Saturday and depart on Monday; those who stay during the week limit their attention to the towns and more pronounced show places, leaving the more rural parts quiet. But this only applies, as we have seen, to a very small proportion of the year, and during the spring and autumn the island is a most delightful and desirable place of residence, not only because of its climate, views, and accessibility, but also because the cheap trippers are conspicuous by their absence. During the winter, too, it may be resorted to with much advantage by those who require a milder climate than that of England or Scotland at this season. Though so near to Liverpool (seventy-two miles), and but little further north, there is a most remarkable difference in the climate. The climate is at once bracing and mild. Its insular character makes all the coast as open to the sea as the deck of a steamer or sailing vessel. Places more inland, such as Union Mills, and Crosby near Douglas, Kirk Andreas (near Ramsey), Ballaugh, Kirk Michael, and Foxdale (near Peel), and the more sheltered parts of Castletown, Peel, Douglas, Ramsey, Port St. Mary, and Port Erin, enjoy a climate partly marine, partly rural. The coast scenery resembles that of Scotland, all about Kirk Michael resembles that of Derbyshire, while Glen Helen, Sulby Glen, and other picturesque spots possess beauties *sui generis*. The voyage from Liverpool lasts about five hours in average weather, being shorter or longer according as wind, tide, and sea are favourable or the reverse.

The Noble Hospital.

A small hospital has existed in Douglas since 1839, but it had long been found a very inadequate structure, in a situation the reverse of healthy. It was not only the hospital of Douglas, but of the whole island. When some years ago the committee felt it imperative to look out for a new site where a new and improved hospital might be erected, the expense of the suggested land and of the hospital it was proposed to build upon it was so great that the committee felt obliged to be content with an inferior site and an inferior building. The late Mrs. Noble (to whom the land belonged) and her husband, when they heard of this, most generously offered freely, not only the site, but also to erect the hospital. This was completed and opened on Sept. 4th, 1888, amidst much local enthusiasm. A visit to it will well repay anyone, and the medical visitor who wishes to see how efficient a hospital can be provided at a moderate cost will find it a very useful model. The plan is shaped thus: ⊓, the central limb being the administrative block, while right and left are those containing the male and female wards, the hospital being on the pavilion principle. The large wards contain ten patients in each, and there are two smaller ones, each containing four beds. There are also private wards and lock wards. In all forty-five beds could be provided, but a smaller number are in use at present. The cost of the building was £5000, which, considering that it has all the modern improvements, and that the best workmanship and materials have been used, must be regarded as a very moderate sum.

Sanitary Reforms.

Originally all the Manx towns were built with narrow streets of small houses, mostly two-storeyed, with courts here and there. Many of these streets are straight or at right angles, very similar to one another in appearance. They were originally built, it is said, for the exigencies of the smuggling trade, and, as will be readily conceived, they are very unfit for human habitations now. Slums, rookeries, and courts which are a disgrace to civilisation are to be found in Douglas, but they are gradually giving place to more healthy structures. The new hotels have been fitted up with all the recent sanitary improvements in the lavatories, waterclosets, urinals, &c., and this has had the

desirable effect of inducing the managers of the older hotels to effect similar improvements. Modern houses also are furnished with wash-out closets, ventilating shafts, interceptors, &c. But much still remains to be done. The river Douglas is a tidal one, and it is very evident from the unsavoury smells in the harbour at low water, especially in hot weather, that it receives a large amount of sewage either from town or house drains, from vessels in the harbour or from all. It ought to be made an offence to discharge sewage from any vessel into the harbour, and the authorities at Douglas will act wisely if they follow the example of those at Torquay, and carry all their sewage to points where it will not be washed back by the incoming tide, but be discharged once for all into the sea. The town and harbour of Douglas have now a very considerable extent of frontage towards the sea, and very suitable points for the outfall could be found—one round Douglas Head, the other between Douglas and Onchan. The expense would at first be large, but it would be amply repaid by the increased salubrity and consequent popularity.

Public Mortuary.

For a long time past Douglas has greatly needed a public mortuary for the reception of bodies found exposed, or at dwellings in which it was not desirable to make a post-mortem examination, or to take jurors to view the body. There is now every probability of a new mortuary being erected, with a proper post-mortem chamber and all the modern requisites.

Lunatic Asylum.

About three miles from Douglas is the General Lunatic Asylum, established in 1866. It has 200 beds. The patients average 189, which may seem a large number. It must be remembered that the resident population of the island ranges from 50,000 to 60,000; which number is increased very considerably in the visiting season, as many as 3000 or 4000 persons frequently arriving on a Saturday during the summer.

The Climate.

This has been thoroughly investigated by Mr. A. W. Moore, F.R.M.S., in a most interesting paper published in Douglas in 1889. The results of a most exhaustive research are given at the end as follows:—"The results arrived at with regard to the climate of the Isle of Man may be summarised as follows: Its temperature is more equable than that of the surrounding coast, being somewhat higher in autumn and winter, similar in spring and lower in summer. There is comparatively little frost and snow, but a considerable amount of 'raw' damp weather, which to certain constitutions is more trying than a lower temperature in combination with a drier atmosphere. Its sunshine is much greater than in any surrounding district. Its winds appear to be much the same in strength and frequency, but as the island is more exposed they are felt more than on the mainland. The question of its rainfall is a most complex one, as the fall in the various parts of the island varies so considerably. Generally speaking, however, the rainfall is rather greater and more frequent than on the adjacent coasts, but much less than in the mountainous districts beyond those coasts. Its humidity, so far as can be ascertained from limited observations, is rather in excess. We may say, then, that the Manx climate is equable and sunny, and—though humid—decidedly invigorating; that its rainfall, though never excessive, varies considerably in its different districts; and that it is much exposed to winds which are, for the most part, mild and damp." Mr. Alfred Haviland, M.R.C.S. Eng., in a lecture delivered in Douglas on June 13th, 1883, spoke most favourably of the climate of the island, as the result of "a lengthened residence, careful investigation of its physical and climatal characters, as well as an attentive and close inquiry, extending over several months, into the health of the native population." The following is from the concluding portion of the lecture:—

"The above are the principal features of the climate of this island. They afford sufficient evidence in themselves of its suitability as a health resort, and incontestably prove its exceptional character, when compared with other climates in the British Isles and the continent of Europe lying within the same parallels of latitude. Favourable, however, as the general climate is of this beautiful isle of mountains and glens, a more careful study of its physical geography has revealed numerous sites where the physical features and the atmospheric conditions combine to produce local climates calculated to meet the requirements of a large number of variously affected health and repose seekers. In fine, the climatal resources of the Isle of Man, like many other gifts with which Nature has endowed it, require to be better known before they can be as fully and widely realised as they so well deserve to be."

The Resident Population.—Hereditary Diseases.

It is only within the last few years that daily communication has been established between the island and Liverpool all the year round. Formerly this only existed during the short summer season, the service during the remainder of the year being only thrice weekly. Before the time of steamers communication was even less frequent, and during the winter seldom more frequent than once a week. Apart from the question of inconvenience, other much graver evils resulted, which have a special interest for medical readers. In such a small community as the Isle of Man consanguineous marriages were very frequent when the circumstance just mentioned prevented the inhabitants from mixing with those of the neighbouring kingdoms, and so, as it were, restricted marriages within the island itself. It is to this cause that much hereditary disease is attributed. In some parts phthisis has assumed an almost epidemic form, scrofula in the form of ophthalmic diseases prevails extensively, and insanity is said to be disproportionately high. The increased facilities both for the residents and visitors to reach Liverpool, Barrow, Fleetwood, Whitehaven, and other ports has tended greatly to promote marriages between the Manx and other nationalities, much to the advantage of the future generations. These hereditary diseases and this deterioration of progeny are due to no fault of the original Manx physique. The average Manxman resembles in many respects his neighbour Scot, being tall, strong, weather beaten, and capable of almost any amount of exposure to wind and weather. He is, moreover, a sober, moral, well-conducted man, notwithstanding the many stories of an opposite character which have been told of him. A large proportion of Manxmen are total abstainers; they marry while still young men, and have happy homes. It would be well if the same could be said of the cheap trippers, many of whom set the Manxmen a very bad example.

The Local Government Amended Act, 1889.

This Act provides *inter alia* for the removal of infected persons from any ship or vessel, or from any house to a hospital, unless proper isolation can be secured. Compulsory notification of infectious disease is also provided for, and the importance of these measures in such a locality must be obvious. Otherwise disease might be both imported and exported during a busy season to a terrible extent.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Students' Diversions.

MUCH excitement has lately been caused at Queen's College by the unusual conduct of some students attending the class of surgery. Previously to the arrival of the Professor the room was filled with tobacco smoke and a broom fastened to one side of the desk. The learned professor, indignant at these proceedings, retired without giving his lecture, and the authorities of the College were invoked to maintain discipline and correct the offenders. The chief delinquent subsequently apologised, and on the strength of the promised absolution for doing so was surprised to find himself suspended. The students held a meeting afterwards to protest against this alleged breach of contract, mutual explanations followed, and happily the affair, in itself unseemly and childish, has been allowed to pass away without any further exercise of feeling on either side.

Mason College and Queen's College.

An important scheme affecting the medical department of the latter College has been for some time past under consideration. At present the medical curriculum is conducted at both Colleges, a course which presents obvious difficulties and much inconvenience. It has been thought desirable to conduct the medical teaching at one place only, and to sever the association from the theological department of Queen's College. At a meeting lately held a committee was appointed at Queen's, and it was resolved to

invite the authorities of Mason College to appoint a similar committee for consultative purposes. Whatever is done must be submitted to the Charity Commissioners, and the foundation deeds carefully reviewed. The change would be productive of great benefit to the medical teaching of this school, and would be an advance towards a far higher position than is at present held.

The New General Hospital.

At a meeting largely and influentially attended on the 17th inst. three subcommittees were appointed to take charge of the questions of site, building, and finance. There is every prospect of a large subscription list and an ultimate realisation of the most sanguine desires of the promoters.

Death from Swallowing a False Tooth.

The dangers attending false teeth were emphasised by the deputy coroner at an inquest lately held on the body of a woman aged twenty-eight. The tooth was found at the bottom of the œsophagus, attached to a plate made of composition, which had pierced the lungs and aorta. The patient died of hæmorrhage in consequence, and a verdict of accidental death was returned.

Birmingham, Feb. 19th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Newcastle Skin Hospital and Koch's Treatment.

AT the annual meeting of the Hospital for Diseases of the Skin, held here last week, it was stated in the report that the number of cases of an aggravated nature had been again very large, 2434 separate consultations having been given. The senior surgeon, Mr. Anthony Bell, stated that it was his intention to have placed three or four cases of tubercular lupus under Professor Koch's treatment, but, having watched the results of the new treatment in this country, he had at present declined to adopt it. Mr. Bell further stated that the treatment of lupus vulgaris constitutionally and locally adopted at that hospital had proved eminently successful, between thirty and forty cases having been cured during the past twelve months.

Hartlepools Hospital.

It was stated at the late annual meeting of the Hartlepools Hospital that the number of patients treated in-doors and out-doors together was 1510, being 550 more than last year; and an interesting feature in the report was the fact that the workmen's subscriptions reached over £700, which, together with those of the friendly societies, made up practically half the income of the institution. The financial position of the hospital is such that the year closed with a balance in hand of £630.

Tyne Port Sanitary Authority.

At the last meeting of the Tyne Port sanitary authority it was reported that in December last 958 visits had been paid to vessels, and sundry sanitary defects had been found in 59; in January 672 visits had been made, and 10 cases of sickness on board were inquired into. There had been a considerable decrease in the number of emigrants arriving in the Tyne *en route* to America.

Friendly Societies' Convalescent Home.

The first annual meeting of the Friendly Societies' Convalescent Home was held last week at Durham, and the report presented was very satisfactory. This Society has founded a Home at Grange-over-Sands for convalescent workmen, and its distinguishing features are that it is also supported and managed by working men. It was shown that the average cost of a patient staying at the Home was under 8*s.* 8*d.* each.

The Sanitary Condition of Maryport.

At the last monthly meeting of the Maryport sanitary authority the medical officer presented a report showing that the death-rate for the past year had been 27·6 per 1000 of the 224 deaths recorded; 106 were those of children under five years of age. This excessive mortality was explained as due to scarlatina and whooping-cough. Scarlatina the medical officer reported as "prevailing during every month of the year, and in almost every street of the town."

Whitby, Yorkshire.

This is one of our healthiest seaside resorts, and deserves, from the natural advantages it possesses, to be better known than it is. Dr. Tinley, the medical officer of health, has presented his report for the last year, which shows a death-rate of only 16·8 per 1000, while its birth-rate has been nearly double, or 28·9 per 1000. The zymotic death-rate for the year has only reached a decimal 4·0 per 1000, a rate which it would be difficult to show so very low in any town of nearly 15,000 inhabitants, with a moving population of visitors in the summer season.

Darlington Hospital.

The annual report presented at the meeting of the Darlington Hospital showed that the number of out-patients treated during the year was 2500 and in-patients 173. The treasurer's financial statement was also fairly satisfactory.

Death of Mr. Joseph Bainbridge Fife, M.R.C.S.

Many of the older generation of practitioners connected with the Newcastle schools of medicine will be sorry to hear of the death of an old lecturer, Mr. Joseph Bainbridge Fife, which took place at Croft, near Darlington, on the 12th inst. Mr. Fife, who was in his sixty-ninth year, was the second son of the late Sir John Fife, so long the leading operative surgeon of the north. Mr. Fife was a long time lecturer on ophthalmic surgery at the old Newcastle School of Medicine. He was a good general and ophthalmic surgeon, and in the latter department had much practice for many years as a consultant, as well as being one of the surgeons to the Eye Infirmary in Newcastle. The practice of the Fifes passed into the hands of Dr. Jeaffreson, the present surgeon to the Eye Infirmary, many years ago, when Mr. Fife retired to a hunting seat at Croft, where, as above mentioned, he died. Mr. Fife was unmarried, and much resembled his father Sir John Fife in appearance and manners. He never worked so hard as his father, indeed he had a dislike to the drudgery of practice, and was always glad to escape for a day with the hounds. I am quite sure that the mention of "Joe" Fife's death will bring up many recollections to old Newcastle students, with whom he was a great and a well-deserved favourite.

Workington Infirmary.

This infirmary was erected four years ago, to accommodate the comparatively large number of serious cases, the results of accidents at the neighbouring iron-works; cases of all kinds, however, are admitted when there is room. There are three wards, one of eight beds and two of four beds each. All the medical men in the town are allowed to send in suitable cases, and each continues to attend his own cases. This system works smoothly and satisfactorily. The nursing staff consists of a matron and two nurses. The main source of revenue is the weekly subscription of the working men at the various works—in some cases 1*d.*, in others ½*d.*, per week per man. All the works make such contribution, the amount reaching on an average £800 (the total population is 25,000). Almost sufficient is collected in this way to meet the whole outlay. Without any legacy or extraordinary item of income the infirmary has already £400 saved for investment. The working men of Workington are surely to be congratulated for having shown to all others how hospitals may be supported. That the infirmary eminently serves the purpose for which it was built is admitted by all. As an experiment in the way of localising as opposed to centralising hospitals, it appears to have been entirely successful.

Newcastle-on-Tyne, Feb. 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Scottish Universities Commission.

THIS commission continues to have frequent meetings, and, for the last week or two, has been taking evidence on matters affecting the medical faculty from the representatives of the Colleges, and from other persons interested in medical education.

Health &c. of Edinburgh in January.

During January there were 466 deaths, giving a death-rate of 20·30 per 1000 compared with 630 in the corresponding month of last year, and 393 in January, 1889. As to age, 124 were under five years, 59 between five and twenty-five years, 141 between twenty-five and sixty years, and 142

above sixty years. Diseases of the chest caused 177 deaths, and zymotic diseases 42. There were 648 births during the month. During the same period 332 cases of infectious disease were intimated, as compared with 1582 in the corresponding month last year, and 163 in 1889. Of the total, 114 were cases of typhoid fever, 138 of scarlatina, 52 of measles, and 28 of diphtheria. There were 167 patients admitted into the City Fever Hospital and 113 discharged, and 12 died. At the end of the month 257 patients remained, which comprised 101 cases of typhoid fever, 105 of scarlatina, 10 of diphtheria, 10 of whooping-cough, 13 of erysipelas, and 6 of measles.

Death-rate in Edinburgh according to Rental.

Some interesting points bearing upon the mortality of the city during 1890 according to rental was before the Public Health Committee last week. The mortality was lowest in houses with a rent of £50 and upwards—namely, 11·49 per 1000; after these came the houses rented at from £20 to £30; and in those between £5 and £10 the death-rate was highest—namely, 23·14 per 1000. Further, the mortality under five years of age in houses of £50 and upwards was 8·57 per cent., while in houses under £5 it was 39·65; in houses between £40 and £50 it was 6·12 per cent., and between £5 and £10 it amounted to 51·33.

The Disposal of the Edinburgh City Refuse.

The question of the disposal of the city refuse has been before the Town Council for a considerable time, and it was intimated in these pages last year that a deputation had been appointed to visit several towns in England with a view to ascertain the best method of disposing of the refuse. The matter has now become urgent, as it appears there are no vacant places where the refuse can be deposited, as has been the custom in the past. The refuse amounts to something like 110,000 tons per annum. At one time a large quantity was sold to farmers, but not only has the demand from that quarter greatly diminished, but the price obtained is very much lower. The committee recommend the adoption of the destructor or burning method of disposing of city refuse, which they regard as yielding in other places satisfaction alike as regards sanitary and economic considerations. They further suggest that no attempt should be made to centralise the destructors, but that the city should be divided into three or four districts, each of which should have a destructor. The report on the whole subject was brought before the Town Council at its meeting on Tuesday, and was recommitted to the Cleaning and Lighting Committee to bring up specific recommendations and estimates for giving effect to the recommendations of the report. This is certainly a good step in the right direction, and the committee will have earned the approval of sanitarians if they succeed in carrying out their plans and making them all they anticipate.

Mortality of Edinburgh.

The mortality last week was 105, the death-rate being 20 per 1000. Diseases of the chest caused 45 deaths, and zymotic diseases 9. The intimations for the week were: Typhoid fever, 25; diphtheria, 4; scarlatina, 42; and measles, 21.

Feb. 17th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Mercer's Hospital.

ON Monday, in the Queen's Bench, judgment was given by the Lord Chief Justice and his colleagues in the case of Nixon and Ward *v* Auchinleck, in reference to an application to compel Mr. Auchinleck to produce the authority by which he held the post of physician to Mercer's Hospital. The Lord Chief Justice, in giving judgment, said that the governors of the hospital were left a wide discretion as regards the application of the money, and no external superintendence or control was reserved. That was the position of Mr. Auchinleck, assuming that the governors had power of appointing him. He was a mere licensee, whose licence could be revoked by the governors at any moment, and therefore he held a position in a private hospital which could not be challenged now in the nature of a *quo warranto*. The other justices concurred, and the conditional order for *mandamus* was accordingly refused.

The late Dr. J. A. Byrne.

At a recent meeting of the Obstetric Section of the Royal Academy of Medicine in Ireland the following resolution was adopted: "That the Obstetric Section of the Royal Academy of Medicine desires to record its deep regret at the loss it has sustained by the recent death of Prof. Byrne, and to express its sincere sympathy with his widow and family."

Sentence on a Medical Student.

A medical student, by name Henry Harvey, was on the 14th inst., at the Commission of Oyer and Terminer, sentenced by Mr. Justice O'Brien to one year's imprisonment with hard labour for abducting a girl under eighteen years of age.

Mr. Lawder T. Whelan has been appointed resident surgeon to the City of Dublin Hospital.

BELFAST.

The Ulster Eye, Ear, and Throat Hospital.

From the twentieth annual report presented by Dr. W. A. McKeown at the meeting of the friends and supporters of this hospital I learn that the operation for cataract has been performed forty-two times, with only one loss. During the last six years he has tabulated 296 operations for cataract, and he thinks all hospitals should publish reports of their cataract operations. Dr. McKeown urges the need of day-rooms and further space for the ear and throat department. Dr. Killen has administered anæsthetics and given much assistance. The total number of patients treated during the year was 1613, of whom 196 were intern; 964 patients paid an entrance fee of one shilling, while the remainder were admitted free. No one is refused admittance because of poverty, but well-to-do persons of the working-classes are not permitted to avail themselves of privileges to which they are not justly entitled. The committee started the year with a debt of £78 19*s.* 11*d.*; now the debt is £25 8*s.* 3*d.* The total receipts of the hospital were £630 12*s.* 8*d.*; the total expenditure was £577 1*s.*

The Belfast Medical School and the Royal University.

At the last meeting of the Senate of the Royal University, the following teachers in the Belfast Medical School were elected examiners:—Dr. Whitla, in Materia Medica; Dr. Byers, in Midwifery; and Dr. E. A. Letts, in Chemistry. I understand that a commencement will soon be made in the construction of the new chemical laboratories which are so necessary at Queen's College, Belfast.

Outbreak of Small-pox.

I regret to report that small-pox has again appeared in Belfast, but fortunately the epidemic is mild, and so far no deaths have occurred. On Monday last, in one of the barracks of the Royal Irish Constabulary in Donegal-street, where there are fifty-four men of various ranks, six were seized with the disease, and have been removed to the Union Hospital. The barracks, after thorough fumigation, have been closed, the men have been temporarily quartered in other places, and every possible precaution has been taken to prevent the disease spreading. It is stated that during the past month other isolated cases of small-pox have been met with in parts of the city, and it is thought the disease has been introduced by foreign sailors.

Feb. 17th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Sanitation in Paris.

IT may interest your readers to know what machinery is employed in this great city for the carrying out of sanitary measures. Our own Local Government Board is here represented by the Prefecture of Police, which has attached to it divers corps of inspection, included in which are, besides medical men, veterinary surgeons, chemists, architects, engineers, &c. The functions of these officers consist in the inspection of abattoirs, of the cattle market of La Villette, of establishments which are in an insanitary or dangerous state, of furnished lodgings, of prisons, of lunatic asylums, public and private, of private hospitals, and of bureaux that supply wet nurses. Workshops in which child labour is utilised are also periodically inspected. The head of this sanitary service is the Prefect of Police, who is aided by a kind of sanitary parliament, the Conseil

d'Hygiène et de Salubrité de la Seine. A subordinate Board of Health exists in each arrondissement of Paris, as also in the suburban arrondissements of Sceaux and St. Denis. The supreme Board of Health meets every fortnight, its proceedings being duly reported in a volume issued annually. Adulteration is sharply looked after by the Laboratoire Municipal de Chimie, created some ten years ago. Here articles destined for consumption are analysed at the instance of the authorities or of any private individual who is willing to pay a small fee. Wine shops are visited by inspectors every three months as a rule, and specimens of the beverages sold are taken away for analysis. Then there is the Laboratoire de Toxicologie, where questions affecting public health and toxicological and medico-legal points are studied. Lastly, the jurisdiction of the Prefecture extends to what is euphemistically denominated the Dispensaire de Salubrité, on the staff of which devolves the duty of making a fortnightly examination of every registered prostitute in Paris. Any woman found to be suffering from venereal disease is summarily despatched to the St. Lazare Hospital, there to be detained until she is cured. This fortnightly examination is compulsory on every *fille soumise* (registered prostitute).

The Influence of Cold Weather on the Mortality of Paris.

The severe winter with which we have been visited has provided a good opportunity for establishing the relation that exists between the commencement and the cessation of the low temperature and the fluctuations in the mortality resulting therefrom. Commencing on Nov. 26th, the cold weather continued almost uninterruptedly until Jan. 21st. The mortality did not, however, rise above the normal until the third week after the first date above mentioned, the increase being, of course, due to the greater frequency of diseases of the respiratory organs. Again, from the statistics of the week ending Jan. 31st, it is seen that the mortality had descended to the level usual at this season of the year, this return to the normal being only apparent one week after the disappearance of the phenomenally cold weather.

Paroquets as Carriers of Infection.

That domestic pets sometimes constitute a danger to the health of their admirers is shown once more by the following sad occurrence, reported by the *Nouvelliste de Lyon*. It appears that a newly married couple went on a visit to an aunt living in the neighbourhood of Lyons, taking with them as a present to their hostess two paroquets newly arrived at Marseilles from Oceania. A few days later, the visitors, their aunt, and the latter's servant fell ill, and the disease was pronounced by two medical men to be yellow fever. A fatal result ensued in all four cases, and the paroquets, which are supposed to have been the unconscious importers of the germs of the dread disease, soon died themselves of "consumption." The authorities have had the house which was the scene of this sad occurrence disinfected.

The State Uniform of French Doctors of Medicine.

It is not generally known that any Doctor of Medicine of a French Faculty who may be desirous of availing himself of the privilege is entitled to sport on solemn occasions a costume that for gorgeousness throws that donned by Academicians completely into the shade. By a clause in a law bearing the date of the 20 brumaire, an XII., otherwise Nov. 12th, 1803, it is enacted that a plain Doctor of Medicine is authorised to wear at public ceremonies, or when giving evidence before a court of justice, a costume thus composed: a black gown of bolting-cloth (*étamine*), the back and front of which are of crimson silk bordered with ermine; a black coat *à la Française;* cambric bands, and a cap of crimson silk with a border of gold lace. The time is probably not far distant when that cumbrous institution, the University of France, will be replaced by local Universities after the English model. We shall then perhaps see the medical graduates of the Universities of Paris, Montpelier, Nancy, &c., cutting a conspicuous figure at public functions attired in a costume which rivals in magnificence that seen on the professors who confront the aspirant to academical honours in the dingy examination rooms of the Paris Faculty of Medicine. Its costliness would, however, always militate against its universal adoption, even if the Frenchman's innate dread of rendering himself ridiculous would induce him ever to appear in public in such a guise.

Voluntary Constipation.

In a recent article in the *Revue de l'Hypnotisme*, entitled "Voluntary Personal Uncleanliness," Dr. Galippe calls the attention of the authorities to the necessity of reforming the sanitary arrangements obtaining in most French educational establishments. Some facts related by him in this connexion will be read with astonishment by those who are not familiar with the horrible filthiness of most French closets. He says, "We need hardly remind the reader of the disgusting filthiness of most (school) closets, and I have known sensitive children who refuse to repair to these places until they are absolutely obliged to do so, such is their horror of the stench that there assails their nostrils, and the dirt they may bring away with them. I have known of many children who have suffered much from this voluntary constipation, and of others who, affected with diarrhœa, have for a whole week passed their motions into their clothing." Dr. Bourneville, in a notice of this article (*Progrès Médical*, Feb. 14th) says that he has for years urged the necessity of endowing not only schools but also hospitals and barracks with decent closets. He has endeavoured to convince the French public of the feasibility of such a stupendous feat by having constructed for the use of his idiot and imbecile child-patients at the Bicêtre closets, the cleanliness of which strikes the French visitor with astonishment. M. Bourneville also demands for each school a complete set of bath-rooms, and calls for regulations rendering the use of a bath obligatory on the scholars.

Paris, Feb. 20th.

MEDICAL TRIAL.

REGINA *versus* BERRY.

(Before Mr. JUSTICE CHARLES.)

A CASE of some interest to the medical profession was tried at the Old Bailey on Saturday, the 14th inst., before Mr. Justice Charles. Elizabeth Sarah Berry, an uncertificated midwife, practising at Tooting, was charged with manslaughter for causing the death of Emma Spicer by communicating to her the disease known as puerperal fever. Mr. Forest Fulton, assisted by Mr. Horace Avory, appeared to prosecute, while Mr. Tickell defended. Mr. Forest Fulton, in opening the case, stated that the prisoner had practised as a midwife for the last twenty years, and pointed out that the law required that midwives should bring to bear upon the discharge of their duties, just as medical men were required to do, a reasonable amount of care in the management of the cases they undertook. If that had not been done in this instance, and if the death of the patient was brought about by infection conveyed to her by the prisoner, he thought his lordship would say that she was guilty of manslaughter. It was generally recognised by the medical profession that a considerable interval should elapse before attending lying-in women after a case of puerperal fever had occurred. The defendant had attended on Dec. 12th a woman who died from puerperal fever, and on Dec. 8th she had attended another person, who had also died from puerperal fever. On Dec. 12th Dr. Taylor, a gentleman practising in the neighbourhood, told the defendant that she ought not to attend any other cases for a considerable period, at least two months. The question was a twofold one, Was the puerperal fever communicated by the prisoner, or was it, looking at the surrounding circumstances, due to other causes? The jury would have to say whether this attendance, under all the circumstances, with the warning of Dr. Taylor, and the fact that there had been no less than two other deaths, constituted such gross and culpable negligence as, in the opinion of the jury, would justify them in coming to the conclusion that the prisoner was criminally responsible for the death of this woman.

At this point Mr. Justice Charles explained that, as he understood the law, there must be such negligence as amounted to "criminal misconduct."

In her statement before the magistrates the witness had stated that she had thoroughly disinfected herself, and had refrained from attending cases for a month. How far it was possible for persons to disinfect themselves so as not to carry infection to a lying-in woman was a matter open to very great doubt. At the coroner's inquiry into the cause of death the prisoner stated that Dr. Taylor had cautioned her not to attend any other cases for a month or six weeks, and that she did not know what puerperal fever

was, but understood it to be blood poisoning. She had attended 950 midwifery cases.

Among the witnesses examined was the husband of the deceased, who stated that his occupation was that of a plumber, and that he had to attend to drains and water-closets. Dr. Bligh of Tooting was closely pressed by Mr. Tickell to state the distinction which existed in this disease as to its power of being communicated by contagion or by infection, and also what, in his opinion, was the period of quarantine recognised by medical men under such circumstances, but he refrained from expressing any opinion on the subject. In reply to his lordship, he explained that he was in no way concerned in the delivery of the first woman who died, but was called in three days after. Dr. Taylor, in his cross-examination by Mr. Tickell, admitted that puerperal fever, coming on immediately after the birth of the child, might be due to bad drainage, but thought that a patient might show slight symptoms of contagion within twenty-four hours. The husband was then recalled, and stated that the first symptoms of pain in the abdomen occurred just twenty-six hours after delivery. Dr. Taylor further stated that he had advised the prisoner to use Condy's fluid for disinfecting purposes, but had not gone into any details as to its use, as he imagined the prisoner with her experience would have known these. In reply to Mr. Justice Charles, he stated that if he had delivered a person in whom puerperal fever had been set up he would have abstained, after disinfecting himself, from attending other cases for at least a month; and his lordship pointed out that in this case the prisoner had abstained for a month and had also disinfected herself. Mr. J. R. Purdieu, Dr. Taylor's assistant, was then examined, and in the course of his cross-examination by Mr. Tickell stated that he had told the woman that she should have come to the surgery and got permission before attending other cases. He would have given the prisoner permission after a month. He noticed on the occasion of his visit to the house a "very great stench in the room," but could not say exactly from what sources it arose.

Mr. Thomas Bond, F.R.C.S., had made a post-mortem examination of the deceased, and found the lungs considerably congested with purulent lymph and adherent to the pleura. There was no evidence of bronchitis or pneumonia. Both ventricles of the heart were filled with fibrinous clots, and the abdominal cavity was filled with fluid of a purulent nature. The peritoneal surface of the abdomen was also covered with putrid lymph. The mucous membrane of the vagina was in a highly inflamed condition, and in the uterus he found indications of recent puerperal fever. He certified that the cause of death was blood poisoning as the result of puerperal fever. There was no part of the placenta or any membrane remaining in the uterus, nor was there any evidence whatever of any injury during parturition. There was nothing in the necropsy beyond the virulence of the attack to show what had caused the fever.

A juryman asked Mr. Bond if, in his opinion, the prisoner was not justified in attending Mrs. Spicer, after having, without any ill effects, attended a previous case, but his lordship suggested that that was a question which the jury would presently have to propose to themselves.

Dr. W. C. Grigg, physician to Queen Charlotte's Lying-in Hospital, in his evidence mentioned various causes which might give rise to this fever. Judging from the post-mortem examination a considerable amount of blood must have been left within the cavity of the uterus, and that was not without danger. If the surroundings were unhygienic, it would be rapidly decomposed, and lead to this disease. The period of the development of the disease was rather against its being conveyed by the attendant. In a very severe epidemic at Queen Charlotte's Hospital (the severest he had ever seen) sixty-two women were stricken down with puerperal fever, of whom fifty died. He had carefully gone over the records of these cases. Only ten showed symptoms of puerperal fever within forty-eight hours, and of these three had been in the hospital from two to three days previously. Generally speaking, when the contagion was due to direct infection, it showed at the end of the second day or the beginning of the third; and where the mischief broke out early he looked to external sources for the cause—namely, the habitation from which the patient came—the surroundings—and concentrated his attention upon that, rather than upon the attendants; but where it broke out later he regarded the mischief as due to something connected with the attendant.

The husband was again called, and proved that the onset of the abdominal pain which Dr. Grigg had stated to be the first symptom of puerperal fever had occurred exactly twenty-six hours after delivery, and Dr. Grigg thereupon gave his opinion that the disease was probably due to the action of the patient's surroundings.

The jury here stopped the case and returned a verdict of "Not guilty."

Mr. Justice Charles, while agreeing with the jury that the case should not proceed further, thought the prosecution had been very properly instituted, because the practice of attending patients after previous cases of puerperal fever was a most dangerous one; and therefore, especially after the verdict of the coroner's jury and the bill of the grand jury, he had been reluctant to interfere earlier in the case. There was no alternative left to the prosecution after the verdict of the coroner's jury, which was "that the said Mrs. Spicer came to her death from blood poisoning as the result of puerperal fever, which was contracted by her from the gross and criminal negligence of Elizabeth Berry," and therefore they charged her with manslaughter. Now, he did not agree with that finding, and he did not think any case of "gross and criminal negligence" had been made out against the defendant.

The jury expressed the opinion that the defendant left the court without a stain on her character, in which opinion his lordship concurred.

Medical News.

UNIVERSITY OF LONDON.—The following is a list of candidates who passed in the respective divisions and subjects at the Intermediate Examination in Medicine, held in January last:—

Entire Examination.—First Division: Henry George Felkin, Jas. Ryland Hickinbotham, Charles Paine, Frederick John Poynton, Herbert Campbell Thomson, Herbert James Walton.—*Second Division:* Christopher Addison, Martin Ashley, John Aaron Berlyn, Ramon Horace Castellote, Robert Francis Chance, Dudley Willis Collings, Harry Guy Dain, Herbert Fox, Bertram Harold Kingsford, Robert Casement Kirkby, Ernest Graham G. Little, Thomas Davys Manning, Mary Ellen Rye, Samuel Robert Schofield, Walter Scott H. Sequeira, William Shears, Geo. Nathan Oscroft Slater, Kirsop B. Jas. Vickers.

Excluding Physiology.—First Division: Francis Parris Piper, Courtenay Mansel Rhodes, Edwin Sly.—*Second Division:* Evelyn Lancelot Adams, Arthur Percy Allan, Hugh Kennedy Birley, Arthur James Edge, Percy Stanhope Eves, Charles Frederick Gross, George Frederick Murrell.

Physiology only.—First Division: Leonard Arthur Bidwell, Alfred George Jones.—*Second Division:* Robert Turle Bakewell, Lullum Wood Bathurst, Alfred Herbert Card, William Henry Jewell, George Martyn, Alfred Hugh Minton, Albert Paling, William Chas. Cunningham Park, Reginald Smith.

The following candidates passed the Preliminary Scientific (M.B.) Examination in January:—

Entire Examination.—First Division: William Dyche (B.A.), Thomas Hillier Green, Richard Kay, Joseph Arthur Mawson, Harold Batty Shaw, Arthur Herbert Spicer.—*Second Division:* Malcolm Cameron, Claude Lionel Chevallier, Horace James Harris (B.A.), Thomas Clifford Last, Cuthbert Henry Jones Lockyer, William John Oakes (B.A.), Percy Allan Palmer, George H. Wheeler (B.A.).

Chemistry and Experimental Physics.—*Algernon Carter Bean, *Sydney Henning Belfrage, *William Marmaduke Bergin, *Victor John Blake, Herbert Cardin, *Felix Bolton Carter, *Walter Ernest Cross, Edward Charles Davenport, *Alfred Dimsey, *Stewart Ranken Douglas, *Edward Guy Dru Drury, Brennan Dyball, *Arthur Earnshaw, *William Dyer Frazer, Frederick Harcourt Gervis, Henry Norman Goode, Charles Hanks, *Charles John Harnett, *Thomas Hood, *David Horwitch, Edmund Eyre Lloyd, *Leonard Freeman Marks, Joseph Thomas Marsden, *Sydney Herbert Mason, *Joseph Corbett Muir, *William Percy Nicol, *James Henry Francis Nunn, *Arthur James Pedley, *Norman Howard Pike, *David Rice, *Edward Lionel M. Rusby, *Joseph Shardlow, *Frank Addinsell Smith, *Lewis Albert Smith, *James Charles Spillane, *Leonard Kirkby Thomas, Charles Robert Watson, Henry Chorley Watt, *Morris Wilks, *Harry Mortimer Wise.

Biology.—*William Boase Bennett, *Lewis William Burrow, *Joseph Ernest G. Calverley, *Cecil Frederick Gordon, *J. Alban Kendall Griffiths, Thomas A. Hawkesworth, Sindia Emily Hickson, *Albert Hilton, Gwilym Prosser James, Arthur Dickson Ketchen, William Maclachlan M'Donald, F. Archibald Hope Michod, Charles Hay Murray, *Herbert Ainslie Scott, *Thomas Blanchard Sellors, *Arthur Richard Harrie Skey, *John Clementson Smellie, Daniel Lloyd Smith, Francis Joseph Smith, *Graham Udale Smith, *Percy Montague Smith, *Harry James Spon, *John Robert Steinhaeuser, *Cecil William Stickland, *Thomas Morrell Thomas, *Edward Owen Thurston, *Sydney Gordon Tippett, *Thomas Henry Wells, Stanley Whicher.

Two Subjects of the Examination (under former Regulations).†—Colin C. Clarkson (C. B.), A. William R. Cochrane (P., B.), Adèle L. De Steiger (C., P.), William Henry Gray (P., B.), Thomas Lambe (C., P.), Eldon Pratt (C., P.).

*One Subject of the Examination (under former Regulations).**†—William Edward N. Dunn (B.), Henry Wylie Eldred (B.), Ernest Jermyn Hynes (B.), Harry Fulham Turner (C).

* These candidates have now completed the examination.

† The subjects taken up by these candidates are indicated by initials after the names: C, Chemistry; P, Physics; B, Biology.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 5th inst. the following degrees were conferred:—

Bachelors of Medicine and Surgery. — Francis Welford, Cuthbert Wyman, Trinity; Alfred Featherstone Kellett, William Wickham Simmons, St. John's; Harry Edward Smith, Gonville and Caius; Thomas Greenwood Crump, John Elsdale Molson, Emmanuel; Edward Spencer Blaker, Cavendish Hostel.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — Those gentlemen whose names were published in THE LANCET of Feb. 7th as having passed the examination of the Royal College of Physicians, also passed the necessary examination, and, having conformed to the by-laws and regulations, were admitted at the ordinary meeting of the Council on the 12th inst. as Members of the Royal College of Surgeons. In addition to the list, the following gentlemen have also been admitted Members of the College:—

Bloomer, F. W., L.S.A., Wednesbury.
Clarke, E. A., L.S.A., Dukinfield.
Godfrey, C. G., L.R.C.P. Edin., Ampthill-square, N.W.
Hutchinson, Cyril G., L.R.C.P. Irel., Birmingham.

NAVAL MEDICAL SERVICE.—The following candidates, who competed at the examination held on the 2nd inst. and following days at Examination Hall, Victoria Embankment, for appointment as Surgeons in the Royal Navy, have been successful:—

	Marks.		Marks.
Meikle, T. C., M.A., M.B.	2741	Richards, N. L.	2364
Senior, R. W.	2632	Penfold, E. A., M.B.	2318
Tindall, E. E. P.	2521	McGregor, G.	2312
Kershaw, E. E.	2521	Clarke, B. R.	2258
Wood, J. C.	2453	Finch, E. J.	2251
Howell, A. H.	2421	Robinson, J. K., M.B.	2240
Marriott, H. B.	2405	Clift, H.	2163
Lomas, E. C., M.B.	2400		

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The surgical essay prize of 35 guineas has been awarded by the College to Mr. Harold Jailand Stiles, M.B., F.R.C.S.E., of Edinburgh, for his essay on "Contributions to the Development, Anatomy, Pathology, and Surgery of the Breast." The prize was open to all licentiates and Fellows of the College, except Fellows who were members of the President's Council, and candidates had the selection of any surgical subject.

FOUR CHILDREN AT A BIRTH.—The wife of a forgeman, living at 14, Stamford-street, Warrington, gave birth on Saturday to three boys and a girl. Two of the children were stillborn, and the others lived for twelve hours. The mother is doing well.

THE SANITARY ASSURANCE ASSOCIATION.—The tenth annual meeting of this Association was held on Monday last at the offices, 5, Argyll-place, W., the President, Sir Joseph Fayrer, in the chair. Mr. Joseph Hadley, secretary, read the annual report, which referred to the work of the Council in promoting the Sanitary Registration of Buildings Bill. On the motion of the President, seconded by Mr. Henry Rutherfurd, barrister-at-law, the report was unanimously adopted. Surgeon-General Cornish proposed: "That the petition to the Prime Minister requesting the Government to make provision in their Bill for consolidating and amending the laws relating to public health as will secure the registration of buildings in some such manner as proposed by the Sanitary Registration of Buildings Bill, 1890, be approved, and that copies be forwarded to the governing bodies of the institutions which took part in the Sanitary Registration Conference of 1887, with a letter requesting them to sign the petition and take part in its presentation." This was seconded by Mr. Andrew Stirling, supported by Mr. Mark H. Judge and Dr. Willoughby, and carried unanimously. Sir Joseph Fayrer, having some time since announced his intention of retiring from the presidency, the meeting conveyed to that gentleman its warm appreciation of and sincere thanks for the valuable services rendered by him during the ten years in which he held the office of President. Surgeon-General Cornish, late Sanitary Commissioner with the Madras Government, was elected President, and Sir Joseph Fayrer and Professor Rogers Smith were elected Vice-Presidents.

PROPOSED INFECTIOUS DISEASES HOSPITAL.—Negotiations between the West Derby and Wavertree Local Boards have been pending for the purpose of selecting a suitable site for the erection of an infectious hospital for the use of both townships, rendered necessary by the withdrawal of the permission to send infectious patients to the Netherfield-road Hospital. The Derby Board has in consequence resolved to contribute two-thirds of the cost of erecting and maintaining the proposed hospital, and the Wavertree Board will provide one-third.

ASSOCIATION OF MUNICIPAL CORPORATIONS.—At a meeting of the Council of this Association, on Feb. 12th, at the Westminster Palace Hotel—Sir Albert Rollit, M.P., president, in the chair—a resolution was passed urging corporations to adopt the provisions of the Infectious Diseases (Notification) Act, 1889, and the Infectious Disease (Prevention) Act, 1890. The members of the Association also resolved to dine together at the Hôtel Métropole on Thursday evening, March 12th, and the annual meeting was fixed for March 13th.

LONDON FEVER HOSPITAL.—It appears from the annual report for the year 1890 that there had been a considerable increase in the number of admissions. The addition included all the various forms of fever, with the exception of typhoid, the prevalence of which in the metropolis during the year was much below the average. The total number of patients under treatment was 682—308 males and 374 females. The cash statement showed a credit balance of £5026 17*s.* 10*d.*, of which £3860 had been invested, leaving in the hands of the treasurer £1166 17*s.* 10*d.*

PRESENTATIONS.—On the 13th inst., at the close of the last of a course of ambulance lectures, the members of the Rusthall branch of the Girls' Friendly Society presented Mr. Walter C. Aylward, M.R.C.S., L.R.C.P., with a handsome Tunbridge ware inkstand, accompanied by an address expressive of the donors' appreciation of the services of the lecturer.—The many friends and patients of Mr. Philip G. Lee, L.R.C.P. &c., took the occasion of his leaving Monkstown, county Cork, Ireland, on an appointment in Middlesboro', to present him with an illuminated address and handsome presentation as a testimony to the esteem and regard in which he was held during the three years of his practice in that locality.—Dr. C. J. Russell McLean has been presented by the members of the Yeadon St. John Ambulance Association with a beautiful Parisian timepiece, as a token of their appreciation of his "First Aid" lectures during the past year.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. John Nuttall, of Newstead-grove, Nottingham, bequeathed £50 to the Devonshire Hospital, Buxton.—Miss Margaret Chalmers, late of Broughty Ferry, left by her will £100 each to the Dundee Royal Infirmary, and the Convalescent Home, Barnhill.—Mr. John W. Dudley, late of East Dulwich and Woodford, bequeathed £250 each to the Brompton Consumption Hospital and the British Home for Incurables, £150 to the Cancer Hospital, Brompton, and £100 each to the Royal Ophthalmic Hospital, Moorfields, and the Cancer Hospital (free), Fulham-road.—The Tallow Chandlers' Livery Company has made a grant of 5 guineas, the Mercers' Livery Company a grant of £52 10*s.*, and the Armourers' and Braziers' Livery Company a grant of 10 guineas to the Great Northern Central Hospital.—The directors of the Bank of England have voted a donation of £100, and the Saddlers' Livery Company £20, to the Charing Cross Hospital.—The Earl of Pembroke has sent a donation of £100 to the Royal Hospital for Diseases of the Chest, City-road.—Miss Tilley, formerly of Clifton, and late of Park-road, Gloucester, bequeathed £1600 to the Gloucester Infirmary, £1000 to the Bristol General Infirmary, £600 to the Gloucester Children's Hospital, and £400 to the Gloucester Dispensary.—Mr. George Palmer of the Acacias, Reading, has sent a donation of £1000 towards the funds of the Royal Berkshire Hospital.—The Goldsmiths' Livery Company has made a grant of £20 to the Central London Ophthalmic Hospital.—The late Mr. Nathaniel Clayton, J.P., of Lincoln, bequeathed £1000 to the Lincoln County Hospital and £500 to the Lincoln General Dispensary.—The Mercers' Livery Company has sent a donation of 52 guineas to the Surgical Aid Society.

MEDICAL MAGISTRATES.—The names of William Henry England, M.D. St. And., M.R.C.S., and John Edwin Scowcroft, M.D. St. And., F.R.C.S.Edin., have been placed upon the Commission of the Peace for the Boroughs of Leeds and Bolton respectively.

PORTSMOUTH HOSPITAL.—The forty-second annual report, just issued, shows that no fewer than 7915 patients had received treatment in this institution during the past year, of whom 937 had been in-patients, and of these 658 were cured and 142 relieved. The expenditure for the year had exceeded the income by £320 1*s.* 4*d.* The total investments now amounted to £19,174 6*s.*

THE NEW NATIVE HOSPITAL AT LUXOR, EGYPT.—This institution will be a boon to the indigent fellaheen at Luxor and other natives. The opening ceremony was recently performed by the Khedive. The hospital has been erected by contributions from English tourists, supplemented by the generosity of Mr. Brunner, M.P.; whilst Mr. John Cook has undertaken to discharge any annual financial deficiency. There are forty free beds, and gratuitous medical aid will be given to the natives. The medical officer is a native, and pursued his professional studies at St. Thomas's Hospital, London.

THE SEAMEN'S HOSPITAL SOCIETY.—Sir Thomas Sutherland presided at the seventieth annual court, held on Tuesday. The report submitted stated that the first branch hospital adjacent to the docks, opened in June last, had been almost constantly full since its opening. The cost of the building and furnishing amounted to £6798, which had to be provided out of capital. During the year the number of patients at the hospital at Greenwich had been in excess of any previous year in the existence of the Society. The dispensaries also had done good work. Excluding the legacies, the revenue showed an increase of £200. The yearly expenditure of the Society was £13,000, while the reliable income was less than £4000.

THE WARREN TRIENNIAL PRIZE was founded by the late Dr. J. Mason Warren in memory of his father, and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy, the arbitrators being the physicians and surgeons of the Massachusetts General Hospital. The subject for competition for the year 1892 is on some special subject in physiology, surgery, or pathology. Dissertations must be legibly written, and must be suitably bound so as to be easily handled. The name of the writer must be enclosed in a sealed envelope, on which must be written a motto corresponding with one on the accompanying dissertation. Any clue given by the dissertation, or any action on the part of the writer which reveals his name before the award of the prize, will disqualify him from receiving the same. The amount of the prize for the year 1892 will be 500 dols. In case no dissertation is considered sufficiently meritorious, no award will be made. A high value will be placed on original work.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on February 17th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	261	57	1	45	2	366	442
North-Western Hospital	236	33*	..	9	..	278	443
Western ,,	187	26	..	13	1	197	234
South-Western ,,	152	23	..	10	1	186	340
South-Eastern ,,	190	18	..	20	3*	231	462
Northern ,,	284	14	..	30	..	328	480
Gore Farm ,,	5	..	..	..	..	5	300
Totals	1285	171	1	127	7	1591	2691

* Infants with mothers.

MEDICAL NOTES IN PARLIAMENT.

Elementary Education (Blind and Deaf) Bill.

IN the House of Lords on Monday, the 16th inst., Viscount Cranbrook, in moving the second reading of this Bill, said that its object was to insure that blind and deaf children, whenever capable of being instructed, should receive an education like other children in the country. Under the provisions of the measure blind and deaf children would be sent to institutions which already existed throughout the country, and which had been established for the benefit of persons so afflicted, and power was given to the school authorities to contribute to the funds of such existing institutions, or to establish similar institutions themselves, which would specially be devoted to the education of blind and deaf children. The Bill would also permit the Parliamentary grant being extended to schools where those afflicted little ones were educated, so that blind and deaf children would receive educational advantages similar to those enjoyed by their more fortunate companions. Lord Herschell, Lord Norton, Lord Egerton, and the Earl of Powis took part in the debate.

Medical Officers of Health.

On Tuesday, the 17th, the Earl of Dunraven rose to ask Her Majesty's Government as to the powers and duties of a medical officer of health appointed by a county council under section 17 of the Local Government Act, 1888. He should be glad at the same time to be informed as to the powers of county councils in the matter. It appeared to him to be very difficult to gather from the Local Government Act what were the powers of medical officers appointed by the county councils, or what powers the county councils themselves had. They had the appointment of the medical officers of health, and it was provided that by arrangement with the district councils their services could be rendered available; and pending the institution of district councils they could make, he presumed, such arrangement with the urban or rural sanitary authorities. But what those arrangements were the Act did not specify, and it was impossible to find out.—Lord Henniker, in reply, pointed out that the statute did not in any way prescribe the duties which were to be performed by those officers; neither had the Local Government Board any power whatever to define their duties. In each case the duties must be such as the county council might lay down when making the appointment.

Infringement of the Vaccination Acts.

On Monday, in the House of Commons, Mr. Matthews, in reply to a question by Mr. Channing as to a sentence of seven days' imprisonment with hard labour, passed on Feb. 4th on a person for non-payment of costs incurred in connexion with an order under the Vaccination Acts, said: I have received a report from the justices in this case, and have also been furnished with a copy of the commitment. The man was sentenced to imprisonment without hard labour. The occasion, therefore, for such action as is suggested in the second paragraph of the question has not arisen, nor have I any reason to believe that such illegal sentences are of frequent occurrence.

The Factory and Workshops Act (1878) Amendment Bill.

On Wednesday, Sir H. James, in moving the second reading of this Bill, pointed out that its application was limited to those factories where artificial humidity was introduced; it aimed at a better sanitary condition and ventilation of factories, afforded greater facilities for escape from fire and protection from injury from dangerous machinery by means of enforced fencing, and also insisted that workers should receive proper remuneration. In the discussion which followed Mr. Oldroyd, Mr. B. Reid, Mr. J. A. Bright, and Mr. James McLean took part. The Home Secretary said that some amendment of the Factories Acts was requisite in the interest of the health and safety of the workmen, and also for the purpose of preventing any irregularity—he used a mild word—in the payment of wages. The ventilation of factories was not satisfactory, but as regarded that it was as well not to lay down any hard-and-fast rule to fit all circumstances. Considering the point relating to the means of escape from fire, he agreed that the operation of a provision for that purpose could not be confined to future buildings, and was of opinion that a solution of the difficulty might be found. After the debate had continued for some time longer, the Bill was read a second time, and the Committee stage was fixed for Thursday.

THE METROPOLITAN HOSPITALS INQUIRY.

The Select Committee of the House of Lords on the Metropolitan Hospitals resumed its inquiry on Monday. Lord Sandhurst, chairman of the committee, presided, and amongst other members present were the Archbishop of Canterbury, the Earl of Kimberley, Lord Clifford, Lord Saye and Sele, Lord Monkswell, Lord Cathcart, Lord Zouche, and the Earl of Lauderdale.

St. Bartholomew's Hospital.—The Outbreak of Diphtheria.

Dr. Thorne Thorne, assistant medical officer to the Local Government Board, examined by the Chairman, said he had made an inquiry into the sanitary condition of St. Bartholomew's Hospital. The treasurer asked him if he would consent to undertake this duty so far as the sanitation might have affected the outbreak of diphtheria among the nurses. He told him he could not do so officially, but as an old St. Bartholomew's man and as a personal friend of the treasurer he undertook to make the inquiry. The treasurer was under the impression that some of the sanitary circumstances might have affected the outbreak, and witness naturally inquired into that first. He had not yet completed his inquiry, but he had made an investigation into the sanitary circumstances of the two nurses' homes and the three principal ward blocks, and he had sent Sir Sydney Waterlow a provisional report. It must be borne in mind that it was a provisional report. He marked even the covering letter "private," in view of the grounds on which he had undertaken the inquiry. He found that the principal nurses' home was so far perfect that he thought it would be hardly possible to find any establishment in London the drainage arrangements of which and the sanitary circumstances were better. The second nurses' home was an old building. A great many attempts had been made to put the drainage into good order, and great expense had been incurred. He had found certain faults which he advised should be remedied. As regards both these homes, he thought provisionally that they had nothing whatever to do with the outbreak of diphtheria among the nurses. He had two criticisms to make with reference to the three principal ward blocks which he examined.

Some fifteen years ago, at the cost of many thousands of pounds, the governors erected the so-called sanitary blocks at the end of the wards, with the object of getting the closets and lavatories aerated distinct from the wards. He did not think that this object had been properly attained, but a very small alteration would entirely remedy the defect. The principle of the arrangement was good, but the details were faulty. The same criticism applied to certain disconnecting shafts that were made at the same time. It would be a small matter to put them in order.

The Chairman: But would that not have a very prejudicial effect upon health?—Dr. Thorne: I hardly think so, because all the drains coming down into this disconnecting shaft come from these sanitary projections, which have abundant means of cross ventilation quite independent of any air in the closets. There was another defect connected with what was called the nurses' scullery. In each scullery there was a closet which had not been aerially disconnected, and which, he thought, ought to be so. That really represented the faults he found with the buildings. Recommendations were embodied in his report, and he had been informed that instructions had been given to remedy all these matters forthwith.—The Chairman: Have you been able to form any idea how this diphtheria should have made such headway?—Dr. Thorne: I have. I was rather anxious not to express any opinion upon that, for this simple reason—that in order to do so with any authority one has to know the exact dates when nurses were attacked, how the nurses were engaged, what wards they were engaged in, which home they had slept in, and especially whether they had had to do with diphtheria patients. This involved a great deal of work in a large hospital like St. Bartholomew's; and a meeting of the senior staff was at once called with a view to getting all these data. I have not yet received material enabling me to form any final judgment upon the point, but I have gone so far as to say that I feel absolutely convinced that any of the sanitary defects connected with the ward buildings could have but only the most trivial, if any, influence upon this outbreak of diphtheria.

By Lord Cathcart: He would not have advised that the nurses should be put in the cubicle ward on the same floor as the most infectious cases. He had no doubt that the spread of diphtheria led to the nurses being hurried away from the cubicle. Diphtheria was most rapidly increasing in England, and particularly in large cities.—Lord Cathcart: You are decidedly of opinion that this diphtheria did to some extent arise from defects in the arrangements, because you suggested that the sanitary blocks were not in a satisfactory state, and that the nurses' scullery was not disconnected with the main drain?—Dr. Thorne: In my report I state "that the sanitary circumstances of the Nurses' Home in Little Britain are such as to forbid the belief that they could in any way be concerned in the production of the disease; that whilst I am unable to speak with equal confidence as to the Duke-street Home, I have no ground for believing that diphtheria had been induced by any of the sanitary conditions of that building; that as regards the drainage of the ward blocks and the internal arrangements of those buildings conditions do exist, and it is notable in the ward kitchens, which do tend to unwholesomeness, and which have been known to produce sore-throat; and that even if this form of sore-throat be not in its beginnings regarded as of a specific character, it is certain that those suffering from it are to an exceptional degree apt to contract diphtheria when the disease is prevalent. This statement is not intended to prejudge the question as to the origin and diffusion of the infection during the recent prevalence, as to which the necessary data are not forthcoming."—Lord Cathcart: Are you satisfied that there has been no outburst of sewer gas into this building?—Dr. Thorne: If there has been at all it has been by means of the ward scullieries.—Lord Cathcart: And you think it probable that there was an escape of sewer gas into those ward scullieries?—Dr. Thorne: The arrangements of these scullieries were about the same as in all London houses. They were so far faulty. I know there have been complaints of offensive odours in that part of the ward, and therefore I am bound to admit that both the structural arrangements and the evidence I have received point to some such danger at that one spot.—Lord Cathcart: Do you say that the scullieries attach to the wards?—Dr. Thorne: Yes.—Lord Cathcart: Would that not in your opinion be enough to account for an outbreak of disease?—Dr. Thorne: Your term "disease" does not help me. It is well known that drain effluvia cause sore-throat, and sore-throat is a condition which diphtheria seeks above all things for its attacks. Continuing, Dr. Thorne said that he called the nurses and sisters together, and asked them to make any complaints they had to make. They said that in certain wards there had been offensive odours from the closets and ward scullieries. He did not think their complaints went beyond that.—Lord Cathcart: But Mr. Cross in evidence said that there had been no complaints about the closets?—Dr. Thorne: I can only tell you what the nurses and sisters told me.

By the Earl of Lauderdale: He occasionally gave lectures on public health at St. Bartholomew's, but he seldom entered the wards.

By the Earl of Kimberley: He considered it a bad arrangement that the closets should open into the scullieries, and he had ordered its immediate discontinuance. Though the main drain was of brick, it was very efficiently constructed, and he was not prepared in all the circumstances to recommend its removal.

Mr. Cross, clerk of St. Bartholomew's Hospital, examined by the Chairman, said that there was no periodical examination of the sanitary condition of the hospital. They had a surveyor as well as a Clerk of Works. The Clerk of Works made an inspection of the drains every three months. He would not say whether that was sufficient; he merely stated the fact.

By Lord Cathcart: It was the case that on Jan. 29th he stated there had been no complaints as to the closets. He heard nothing of such complaints until Feb. 4th or 5th. There was no intentional concealment of the facts on his part. He should be prepared to admit that they had engaged nurses who physically were not strong enough for the strain put upon them. About two months ago the governors instituted a more searching examination for all candidates as nurses, in order that they might be sure of their constitutional fitness for the duties. No one could deny that the hours of the nurses were very long. His two daughters, who were nurses in the hospital, told him that they were well fed and well cared for. He did not believe there was any ground for complaint as to the food of the nurses. The matron suggested about the middle of December that it would be desirable to offer the nurses a glass of port wine each day, and some soup at ten o'clock. The suggestion was no doubt due to the illness among the nurses. His daughter contracted diphtheria from a ward maid.

Lord Cathcart: A ward maid would be always over the sinks? Mr. Cross replied that this particular ward maid had been in the hospital only four days. The current balance of the hospital with the Bank of England might amount to £4000 or £5000. That money lay dead. They could not keep money on deposit receipt with the Bank of England.

By Lord Monkswell: It was not the case that they had ever applied for permission to take in paying patients.

Mr. I'Anson, surveyor of the hospital, examined by the chairman, said he had general supervision of the buildings. He reported anything wrong either in sanitary or structural matters. He received reports from the Clerk of Works every week, or oftener if necessary. Witness was not a sanitary engineer, though he understood drainage matters. His salary was 380 guineas, and he received 2½ per cent. on new work. He engaged in private practice. He reported annually on the state of the property. In consequence of the outbreak of diphtheria he on Dec. 4th examined all the wards, Duke street nurses' home, and the matron's house. The report of that examination was the first report he had presented on the sanitary condition of the hospital since his appointment three years ago. He found that the sanitary arrangements of the hospital were good, though not up to date. He expressed the opinion that there was nothing in the sanitary arrangements to account for the outbreak of diphtheria.

By Lord Cathcart: He considered it one of his duties to attend to the sanitary condition of the hospital. He did not receive a drainage plan from his predecessor, although he believed an old plan was in existence. He recommended that the main drain, which was of brick, should be cut off and ventilated. He believed the drain was executed as long ago as 1829. A large drain passed underneath the surgery, ten feet below the basement. He only made this discovery during his recent inspection. If the hospital were to be brought up to date it must be redrained. Considering that there were 600 sick persons in the building, it was, in his opinion, desirable that the system of drainage should be begun *de novo*.

Dr. Barnes, consulting physician in St. George's Hospital and Chelsea Hospital for Women, submitted evidence as to the hospital-supply of London. He expressed himself in favour of hospitals of moderate size, and thought that some of the existing institutions might with profit be removed to the country.

The Committee then adjourned.

The Committee met again on Thursday, Lord Sandhurst presiding.

Middlesex Hospital.

Mr. F. C. Melhado, secretary of the Middlesex Hospital, attended and made a number of alterations in the notes of his evidence. He also answered several fresh questions put to him by members of the Committee.

By the Chairman: They employed a firm of public chartered accountants to examine the accounts of the hospital twice a year, and give a certificate to the weekly board. The accounts were examined annually by three auditors appointed by the court of governors.

By Lord Cathcart: All patients were rendered insensible before being taken into the operating room. In his office there was a complete drainage plan of the hospital. It was accessible at any moment. In his opinion it was absolutely necessary to have a drainage plan. He could hardly understand a large hospital being without a drainage plan.

By Earl Spencer: When patients were unable to provide themselves with tea and sugar they were supplied from the funds of the Samaritan Society. About twenty patients each week were unable to provide themselves with those commodities.

Charing-cross Hospital.

Mr. Arthur E. Reade, secretary of Charing-cross Hospital, examined by the Chairman, said that the institution was founded in 1820 and the present buildings were opened in 1834. It was an absolutely free hospital. Letters were issued by the governors, but persons bearing those letters enjoyed no preference. Of the 2165 patients admitted last year, between 200 and 300 brought governors' letters. The weekly board was open to all the governors, but as a rule only six or seven attended the meeting, and these were members of council. The members of council were elected for three years at the annual court of governors, and were eligible for re-election. It was the council who dismissed the high officials. All male servants were engaged and discharged by witness, and nurses and probationers were engaged and discharged by the lady superintendent. Sisters were engaged by the council in consultation with the lady superintendent. In the event of dismissal either of a male servant or a nurse, the matter was always reported to the weekly board or to the council. There was always an appeal to a superior authority. The annual income of the hospital was about £6000. Annual subscriptions constituted their most reliable source of income. Their present income was insufficient to meet the expenses of the hospital. They had to draw from capital laid aside in better years. There were 175 beds in the hospital, of which about 165 might be described as working beds. Several beds were reserved for accident cases, of which they had a large number. They had seldom to turn away patients. As a matter of fact, he considered the hospital supply of the district to be sufficient. They experienced no difficulty with the contractors in keeping their wares up to sample. He could not remember a single case of complaint as to the food. There were five resident physicians and surgeons. In the event of gross misconduct by an officer, he would bring the matter to the notice of the treasurer. Witness had no authority to suspend an officer. Witness did not reside in the hospital, and in his absence the chaplain took his place. The nursing staff consisted of ten sisters, seventeen nurses, and twenty-four probationers. Six of the probationers were lady probationers, who paid one guinea a week. It was only recently that they had begun to do their own nursing. Sisters worked eight hours and a half per day. One Sunday they were on duty five hours, and the next Sunday nine hours. Altogether they were on duty fifty-eight hours a week. The nurses were on duty sixty-seven and the probationers sixty-nine hours a week. Nurses did nothing but nursing work. Ward maids came in to do the menial work. The council were considering the question of pensions for the nurses. Nurses were paid from £22 to £25 a year, and received uniform and 2*s.* 6*d.* per week for washing. Probationers received no salary for the first year, £15 for the second, and £20 for the third. They received uniform and 2*s.* 6*d.* per week for washing. At the end of the third year they gave the nurses a certificate of efficiency. They had only very recently begun sending out nurses. He should certainly like to see a uniform system of account-keeping among the London hospitals. He did not think it would be possible to bring the accounts into exactly

the same form. The out-patient department was not crowded. He could give no estimate of the cost per patient in this department.

By Lord Cathcart: They had a sanitary plan of the hospital. He regarded it as a necessity in such an institution. They had a ward for Jewesses. The lady who gave the money for this ward was quite willing that Christians should be admitted, although Jewesses should have a preference. There were over 200 students in the medical school. No complaints of overwork had been made by the nurses. Lord Cathcart informed the Committee that he had made a surprise visit to the hospital along with another member of the Committee. They went over the whole establishment, and, considering the limited nature of the site, he regarded it as very satisfactory.

By Lord Zouche: The medical school paid all expenses, and made a small contribution to the funds of the hospital. There was a post-mortem examination in all cases where no objection was raised.

By Lord Thring: Eight members was a small, and fourteen a large attendance at the monthly meeting of the council.

By Lord Clifford: Unless they received large legacies or a material increase in the way of subscriptions, they would soon be unable to carry on the hospital as at present without a special appeal to the public.

By the Chairman: They were always appealing to the public, but they had not made a special appeal since 1880, when the hospital was closed for thirty days. They did not admit scarlet fever, and only severe cases of diphtheria. They took typhoid fever, but not typhus fever. Sisters received a holiday of one month, nurses of three weeks, and probationers could have a week if they cared. Any of the staff might take a day or a half day.

By the Earl of Kimberley: Many persons used the hospital as they would a consulting physician. They discovered few cases of abuse of charity. Many of the old students sent patients to the hospital both for admission and consultation.

Mr. Stanley Boyd, dean of the medical school at Charing-cross Hospital, examined by the Chairman, said that 228 students were at present in attendance. Last year they had 82 new students, 31 general, 35 dental, and 16 occasional students. The school was increasing slowly but steadily. The general student paid either 90 guineas in one sum or 100 guineas in five instalments for the curriculum or the Conjoint Board diploma. The dental student paid either 54 guineas in one sum or 60 guineas in two instalments. The total gross revenue of the school last year amounted to £4070. One-fifth of all fees was taken off for the hospital, one-fifth went for school management, three-fifths were divisible among the staff and lecturers. He considered it would be a very great advantage if the hospitals were relieved entirely from the teaching of botany, zoology and physics, and a certain amount of the rudiments of chemistry. Those subjects could be taught in the schools and colleges throughout the country. A central school would be open to considerable disadvantage.

By Lord Cathcart: They had no difficulty in maintaining discipline amongst students. Troubles occasionally arose.

By the Earl of Arran: What was wanted in the medical profession was a more uniform standard of education and a standard higher than the lowest now accepted.

By the Chairman: In the course of this inquiry it had been said that they could not possibly teach such a subject as physiology at Charing-cross Hospital. Without boasting, he might safely say that their physiological department was as good as any in London.

Mr. Frederick Willcocks, one of the out-patient physicians at the hospital, explained the methods of the out-patient department. He expressed the opinion that, from a teaching point of view, this was the most valuable department of the hospital, and he would not like to see it abolished. Very few of their patients could pay a fee for medical or surgical treatment. He did not think that the schools should be separated from the hospitals. There were sufficient, but not too many, schools in existence. The physicians and surgeons received no payment for the work they performed in the out-patient department. The resident appointments were the prizes of the school, and were given to the best of their students.

The Committee then adjourned.

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THIN, JAMES, South-bridge, Edinburgh.
The Intra-cranial Circulation. By James Cappie, M.D. 1890. pp. 188.

Effecte der Nervenreizung durch intermittirende Kettenströme; von Dr. Br. Werigo (August Hirschwald, Berlin, 1891).—The New State, or Unorthodox Socialism; by J. Stirling (W. Reeves, London, 1891); price 6d.—The Treatment of Chronic Tubercular Consumption; by G. C. Smith, M.D., Austin, Texas.—Preventable Deaths in Childhood; by W. Wynn Westcott, M.B. Lond. (Hansard Publishing Union, London).—Our Baby: for Mothers and Nurses; by Mrs. Langton Hewer (J. Wright & Co., Bristol, and Simpkin, Marshall, & Co., London, 1891); price 1s. 6d.—Las Inyecciones de Koch; por el Dr. D. G. G. Lozano (Marato y Hermano, Madrid, 1891).—Recent Reports to the Scientific Grants Committee of the British Medical Association; reprint (Office of the British Medical Association, London, 1891); price 2s. 6d.—Psychologie de l'Idiot et de l'Imbécile; par le Dr. Paul Sollier (Baillière et Cie., Paris, 1891).—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1890 (Government Printing Office, Washington, 1890).—Experiments with Drugs as a question of Science, with a Supplement; by Wm. Sharp, M.D., F.R.S. (G. Bell & Sons, London, 1890).—Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin; herausgegeben von Rudolf Virchow; Band cxxiii., Heft 2 (George Reimer, Berlin, 1891).—Medical Education, Medical Colleges, and the Regulation of the Practice of Medicine in the United States and Canada, 1765–1891; by J. H. Rauch, M.D. (H. W. Rokker, Springfield, Ill., 1891).—Inaugural Address delivered before the Clinical Society of London, Jan. 23rd, 1891, by Sir Dyce Duckworth, M.D., LL.D., President (John Bale and Sons, London).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

AGNEW, E. D., M.R.C.S., has been appointed Medical Officer for the Workhouse, and Medical Officer and Public Vaccinator for the Hollingbury District, of the Bishops Stortford Union, vice Cribb, deceased.

BALLANCE, CHAS. A., F.R.C.S. Eng., has been appointed Surgeon to the National Hospital for the Paralysed and Epileptic, Bloomsbury, vice Wm. Adams, F.R.C.S. Eng., appointed Consulting Surgeon.

BEAUMONT, A. W., L.R.C.S. Edin., has been appointed Medical Officer for the Fourth District of the West Ham Union.

BEVILLE, F. W., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

BLAYNEY, JOHN H., L.F.P.S. Glasg., has been appointed Medical Officer of Health to the Great and Little Heatons, Prestwich Union Rural Sanitary Authority.

CARTER, W. R., B.A. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

CASSAL, C. E., has been appointed Public Analyst for the Administrative County of Kesteven.

COLLIER, HORACE, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Physician to the Children's Hospital, Great Ormond-street, vice James Bays, M.D. Lond., resigned.

CRESWELL, J. E., L.R.C.P. Lond., M.R.C.S., has been appointed Senior Assistant Medical Superintendent for the St. Pancras Infirmary, Dartmouth-park-hill.

DERRY, B. G., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Third District of the Bodmin Union.

EVANS, ABEL, M.R.C.S., has been reappointed Medical Officer for the Lampeter Union.

FORDE, T. A. M., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

GIBSON, JAMES, M.B., C.M. Glasg., has been reappointed Medical Officer of Health for the Greetland Union District.

GODFREY, G. P., L.R.C.P., L.R.C.S. Edin., has been reappointed Honorary Consulting Surgeon to the Mansfield and Mansfield Woodhouse District Hospital.

GRIFFITH, W. S., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

HANSON, A., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Withern District of the Louth Union.

HARPER, J. R., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

HAYDON, T. H., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

HILL, W. H., M.B., C.M. Edin., has been appointed Medical Officer for the Basford District of the Basford Union.

HORNER, C. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Twelfth District of the West Ham Union.

HOUSLEY, JOHN, M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the East Retford Rural District.

HUGO, E. V., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer of the Workhouse, and Medical Superintendent at the Infirmary, for the Parish of Paddington.

HUNTER, WILLIAM, M.D., M.R.C.P., has been appointed Assistant Physician to the London Fever Hospital.

JACKSON, J. L., M.B., C.M. Edin., has been appointed Medical Officer for the Hedon District, Yorkshire.

JONES, THOS., M.R.C.S., has been reappointed Honorary Medical Officer to the Mansfield and Mansfield Woodhouse District Hospital.

KELYNACK, T. N., M.B., Ch.B. (Vict.), Pathological Registrar to the Manchester Royal Infirmary, has been appointed Junior Demonstrator in Pathology to the Owens College.

KING, A., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

KIRSOPP, THOMAS, M.B. Lond., M.R.C.S., has been reappointed Medical Officer for the Second District of the Horsham Union.

LEADER, C. R., M.B.R.U. Irel., M.Ch., has been appointed Medical Officer for the Worthen District of the Forden Union.

LAMBERT, F. W., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health to the Farsley Urban Sanitary Authority.

LEVICK, H. D., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric Clerk to St. Thomas's Hospital.

LITTLETON, P. R., M.R.C.S., has been reappointed Medical Officer for the Ashbourne District of the Ashbourne Union.

LOVELL, C. P., M.A. Oxon., L.R.C.P., M.R.C.S., L.S.A., has been appointed Non-resident House Physician to St. Thomas's Hospital.

LOW, H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

LYONS, ALGERNON WILSON, M.B., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the City of London Lunatic Asylum, Dartford, Kent.

MACFADYEN, D., L.R.C.S. Edin., has been appointed Medical Officer for the Parochial Board of Inverness.

MCCALL, A., M.B., C.M. Glasg., has been appointed Medical Officer for the Conisborough District of the Doncaster Union.

MACKIE, JOHN, M.D., L.R.C.S. Edin., has been reappointed Medical Officer to the Brechin Infirmary.

MEADOWS, R. T., M.B., C.M. Edin., has been appointed Medical Officer for the Borough of Saltash, vice Revel.

MILLAR, W. H., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

MORTON, C. A., F.R.C.S. Eng., has been appointed Pathologist to the Bristol Hospital for Sick Children and Women.

MUNRO, J. M., M.B., C.M. Aberd., has been reappointed Honorary Medical Officer to the Mansfield and Mansfield Woodhouse District Hospital.

NEILSON, H. J., M.D. Glasg., has been appointed Medical Officer to the Workhouse, Basford Union; also Medical Officer to the Pride of the Village Lodge of the Manchester Unity Independent Order of Odd Fellows, Old Basford.

RANSON, W. E., M.R.C.S., has been appointed Medical Officer for the Needham District of the Bosmere and Claydon Union.

RILEY, ROLAND J., M.R.C.S., L.R.C.P. Edin., has been appointed Medical Officer to the Workhouse, Cannock, vice Thomas Wilson, M.D., resigned.

ROBERTSON, JOHN, M.B., C.M., B.Sc. Edin., has been appointed Assistant Medical Officer of Health for St. Helens, Liverpool.

ROUILLARD, L. A. J., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

SAYRES, A. W. F., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

SHEARER, D. F., B.A., B.M., B.Ch. Oxon., has been appointed House Surgeon to St. Thomas's Hospital.

SIMMONS, W. W., M.B. Cantab., has been appointed a House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

STOKES, W. G. G., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

THOMSON, W. E. F., M.B., C.M. Edin., has been appointed Resident Medical Officer for the Parish of Eday, Orkney.

THOMPSON, W. H., M.D. Durh., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Quarry Bank Urban District of the Stourbridge Union.

TOLLER, S. G., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

TUNSTALL, A. E., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Clayton Urban Sanitary District of the North Brierley Union.

UMNEY, W. F., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

USHER, C. H., B.A., M.B., B.C. Cantab., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

WALKER, BENJAMIN, M.D. Durh., M.R.C.S., has been reappointed Medical Officer for the Ravenstonedale District of the East Ward Union.

WILBE, HAYDOCK, M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the St. John's-wood and Portland-town Provident Dispensary.

WILDE, LEONARD, M.D., D.P.H., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer of Health for Croydon Borough.

WOOD, WM., M.B., C.M. Edin., has been appointed Assistant Medical Officer to the Edinburgh Provident Dispensary attached to the School of Medicine, Marshall-street, vice Andrew Messer, M.B., C.M., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY ASYLUM, Birmingham.—Clinical Assistant. No salary, but board, lodging, and washing provided.

EASTERN DIVISION OF THE ROYAL MATERNITY CHARITY.—Obstetric Physician. (Apply to J. Long, Esq., the Charity's House, 31, Finsbury-square, E.C.)

GENERAL HOSPITAL, Birmingham.—Resident Medical Officer. Salary £130 per annum, with residence, board, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Surgeon to the Out-patients of this Hospital.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury.—Surgical Registrar for one year. Honorarium of £40 at the end of the term.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House Surgeon. Salary £85 per annum, with board and lodging.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Junior House Surgeon. Salary 60 guineas per annum, with board and residence.

LUTTERWORTH UNION.—Medical Officer for No. 6 District. Salary £20 per annum, with the usual extra medical fees as allowed under the orders of the Local Government Board. (Apply to the Clerk to the Guardians, Lutterworth.)

LEEDS UNION.—Assistant Medical Officer and Dispenser for the Workhouse, Schools, and Infirmary, Leeds. Salary £100 per annum, with board, washing, apartments, and attendance.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—House Surgeon for six months. Board and residence at the Hospital, and remuneration at the rate of 50 guineas per annum.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Convalescent Hospital at Cheadle for one year. Salary £150 per annum, with board and residence.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon. No salary, but board, apartments, and washing provided.

ROYAL SOUTH LONDON DISPENSARY.—Surgeon in Ordinary. (Apply to Dr. Nundy, at the Dispensary, St. George's-cross, S.E.)

SALFORD UNION.—A Visiting Medical Officer. Salary £150 per annum.

SALFORD UNION.—Two Resident Assistant Medical Officers for the Union Infirmary, Hope, near Eccles. Salary £130 per annum each, with furnished apartments in the infirmary.

SKIRLAUGH UNION.—Medical Officer and Public Vaccinator for the District of Sproatley. Salary £20 per annum, exclusive of the authorised fees for surgical and midwifery cases, visiting lunatic paupers, and vaccination. (Apply to the Clerk to the Guardians, Beverley.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.—House Surgeon for three months. Board and residence provided.

ST. THOMAS'S HOSPITAL, Westminster-bridge-road.—Assistant Physician.

Births, Marriages, and Deaths.

BIRTHS.

DICKMAN.—On Feb. 11th, at Buntingford, Herts, the wife of Henry Dickman, M.B., of a daughter.

DUNDAS.—On Feb. 12th, at Litcham, Norfolk, the wife of Mordaunt G. Dundas, M.R.C.S., of a daughter.

GARDINER-HILL.—On Feb. 14th, at Middlesex County Asylum, Tooting, the wife of H. Gardiner-Hill, Medical Superintendent, of a son.

ROBINSON—At New North-road, Huddersfield, the wife of F. W. Robinson, M.B., M.R.C.S., of a son.

WELSH.—On Feb. 10th, at Biggleswade, Beds, the wife of R. C. Welsh, M.B., C.M., of a son.

WORNUM.—On Feb. 13th, at College-terrace, Hampstead, the wife of George Porter Wornum, M.R.C.S., of a daughter.

WREFORD.—On Feb. 11th, at Clapham-road, the wife of Samuel Wreford, M.R.C.S., of a son.

UBSDELL.—On Feb. 12th, at Maridon House, Buckfastleigh, Devon, the wife of Henry Ubsdell, Surgeon, of a son.

MARRIAGES.

GODLEE—SEEBOHM.—On Feb. 12th, at Hitchin, Rickman John Godlee, F.R.C.S., of Wimpole-street, W., second son of the late Rickman Godlee, Esq., of Lincoln's inn, to Juliet Mary, eldest daughter of Frederic Seebohm, of Hitchin.

HUGILL—EVERARD.—On Feb. 14th, at St. Mary's, Balham, by the Rev. Thos. Bates, Vicar, George Frederick Hugill, of Arundel Lodge, Balham, Physician and Surgeon, third son of John Hugill, of Rosedale, Chislehurst, to Muriel Isabel, widow of the late Charles Everard, and youngest daughter of Lieut.-Colonel G. A. Vernon, of Harefield Park, Uxbridge, late Coldstream Guards.

JONES—SLEEMAN.—On Feb. 12th, at Holy Trinity Church, Southwark, by the Rev. W. London, Cyril Lloyd Jones, M.A., M.D., late of Caius College, Cambridge, and the Middle Temple, Barrister-at-Law, of 2, Ashley-gardens, Victoria-street, S.W., and Blackfriars-road, S.E., second surviving son of the late Frederick Charles Jones, M.D., to Catherine Gertrude (Katie), youngest daughter of Dr. John Sleeman, of Southwark-bridge-road, S.E.

SHACKLETON—DAVIS.—On Feb. 10th, at Holy Trinity Church, Weymouth, Thomas Francis Shackleton, M.R.C.S., L.S.D., son of the late John Colyer Shackleton, Esq., of Selhurst Park House, South Norwood, to Lilian Terry Cockeram, youngest daughter of the late Lieut.-Colonel Davis, Bengal Staff Corps.

DEATHS.

BRITTAN.—On Feb 15th, suddenly, at Oxford-terrace, London, Frederick Brittan, M.D., F.R.C.S., of Gwynfryn, Cardiganshire, late of Clifton, Bristol.

EMMETT.—On Feb. 11th, at Winter Hey House, Horwich, William H. Emmett, M.R.C.S.

OLIVER.—On Feb. 4th, at Hertford-gardens, S.W., John Ferens Oliver, M.D., late of Durham, aged 38.

MARSDEN.—On Feb. 6th, at Hastings, James Loftus Marsden, M.D., aged 75.

PARTRIDGE.—On Feb. 12th, at East-hill, Colchester, Joseph Henry Partridge, J.P., Surgeon, in his 74th year.

WARWICK.—On Feb. 16th, at Royal-terrace, Southend, Essex, William Rollinson Warwick, M.D., in his 74th year.

WOTHERSPOON.—On Feb. 10th, at his residence, the Mansion House, Brampton, Cumberland, Thos. A. Wotherspoon, M.D. Edin., aged 43.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, February 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. R. Marcus Gunn: Affections of the Orbit.—London Throat Hospital, Gt. Portland-street: 8 P.M., Dr. McNeill Whistler: Demonstration of Cases.

THROAT HOSPITAL (Golden-sq.).—5.30 P.M. Mr. Mark Hovell: Chronic Suppurative Inflammation of the Middle Ear, and its Treatment. (Post-graduate Course.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. The adjourned Discussion on Dr. Douglas Powell's paper on "Angina Pectoris" will be opened by Sir Walter Foster, M.P.

Tuesday, February 24.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 2 P.M., Dr. Savage: Alcoholic Insanity.

ROYAL INSTITUTION.—3 P.M. Prof. V. Horsley: The Structure and Functions of the Nervous System.

ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Thorne Thorne: Diphtheria, its Natural History and Prevention. (Milroy Lecture.)

THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—8 P.M. Mr. Charles Jones: Scavenging, Disposal of Refuse and Sewage.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. R. Barwell: Rachilysis, its Object and its Method.—Mr. John H. Hutchinson: Measles as a Cause of Endocarditis, being an Account of Four Cases in which Organic Mitral Murmurs developed during the course of the Disease.

Wednesday, February 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Theodore Williams: Cases of Phthisis treated by Koch's Method.—Royal London Ophthalmic Hospital, Moorfields: 8 P.M., Mr. A. Quarry Silcock: Intraocular Growths.

THROAT HOSPITAL (Golden-sq.).—5.30 P.M. Dr. Norris Wolfenden: The Treatment of Tuberculosis of the Larynx. (Post-graduate Course.)

HUNTERIAN SOCIETY.—8 P.M. Dr. J. L. W. Thudichum: Urochrome, its alleged Derivation from the Pigments of the Blood and Bile, and on the Bearing of the Alkaloids and Extractive Acids of the Urine in Gout and Pyæmia.—Mr. F. R. Humphreys: Permanganate of Potash as a Test for the Colouring Matter of the Urine.

Thursday, February 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. R. Brudenell Carter: Ocular Symptoms in Nervous Diseases.—Hospital for Sick Children, Gt. Ormond-st.: 4 P.M., Dr. M. Lubbock: Anomalies of Speech in Children and their Treatment.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. G. Stoker: The more Common Forms of Disease of the Nose.

ROYAL INSTITUTION.—3 P.M. Professor C. Hubert H. Parry: The Position of Lulli, Purcell, and Scarlatti in the History of the Opera (with Musical Illustrations).

ROYAL COLLEGE OF PHYSICIANS.—5 P.M. Dr. Thorne Thorne: Diphtheria, its Natural History and Prevention. (Milroy Lecture.)

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Dr. Dunbar Hooper (Melbourne): A case of Pelvic Hæmatocele treated by Abdominal Section. Special Meeting to consider and pass Rules and Regulations for Examination of Obstetric Nurses.

Friday, February 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL (Fulham-rd., S.W.).—4 P.M. Dr. F. A. Purcell: Cancer of Uterus and its Treatment.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Theodore Williams: Clinical Demonstrations.

CLINICAL SOCIETY OF LONDON.—8 P.M. Living Specimens:—Mr. E. Hurry Fenwick: Three cases of Hydatids of the Kidney.—Mr. Stanley Boyd: A case of Thiersch's Method of Skin-grafting.—Mr. Pearce Gould: A case of Fracture of the Ulna.—Mr. Balmanno Squire: Serpiginous Rodent Ulcer of the Face of seventeen years' duration.—Dr. S. Mackenzie: Case of Multiple Lipomata.—Adjourned Discussion on cases of Removal of the Vermiform Appendix. Paper:—Mr. A. Pearce Gould: Case of Simultaneous Gangrene of both Feet from Syphilitic Disease; amputation through knee-joints; recovery.

THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—8 P.M. Mr. Shirley Murphy: Infectious Diseases and Methods of Disinfection.

ROYAL INSTITUTION.—9 P.M. Mr. Percy Fitzgerald: The Art of Acting.

Saturday, February 28.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Diseases of the Skin, Blackfriars: 2 P.M., Dr. Payne: Vegetable Parasitic Diseases of the Skin.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Clinical Demonstration.

ROYAL INSTITUTION.—3 P.M. The Right Hon. Lord Rayleigh: The Forces of Cohesion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 19th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 13	30·48	N.W.	38	37	74	47	37	..	Hazy
,, 14	30·69	S.W.	39	36	60	47	36	..	Overcast
,, 15	30·61	W.	44	42	69	52	38	—	Bright
,, 16	30·66	S.W.	38	37	79	53	36	..	Foggy
,, 17	30·66	S.W.	37	36	63	49	36	..	Foggy
,, 18	30·71	E.	36	35	50	47	35	..	Foggy
,, 19	30·60	E.	34	33	—	37	31	..	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"PERSISTENT DANDRUFF."

WE reproduce, for the satisfaction of correspondents on the subject of persistent dandruff, the receipt given by Mr. Purnell in THE LANCET of May 10th, 1879:—An ounce and a half of iron wine, one drachm of liquor arsenicalis, three drachms of syrup, water to two ounces. Of this one drachm is to be taken in water after meals. Then an ointment consisting of four drachms of the red oxide of mercury ointment, an ounce and a half of benzoated lard, and two minims of the essence of bergamot should be rubbed thoroughly into the roots of the hair, and its use continued for some time.

C. W. G.—There are different rules about practice in the different States. In some British diplomas are recognised; in New York, and probably some others, no diploma is recognised unless it has been conferred by a University or College in that State. As the State regulations are increasing in strictness, it would be well for our correspondent to obtain official information as to the actual requirements in the State in which he proposes to settle.

Mr. W. M. Elliott.—We would refer our correspondent to the "Manual of Bacteriology," by Professor Crookshank of King's College, who might perhaps be able also to assist him to obtain what he desires.

DEATH CERTIFICATION AND LIFE ASSURANCE.

Mr. P. E. Hill.—Judging from the facts stated in the letter of our correspondent published last week, we certainly think he was justified n refusing a death certificate. Having referred the case to the police and coroner, however, Mr. Hill was freed from further responsibility. As regards the certificate for the insurance company, the propriety of giving one might, we think, have been decided by the results of the necropsy, supposing of course the fee for its performance were forthcoming. The alleged remark of a member of the Board under whom our correspondent serves seems pointless, since a fee could not be recovered for making a post-mortem examination and giving evidence at an inquest respecting a person who died in a workhouse infirmary.

Dr W. Duncan.—The data are too meagre too warrant an opinion "as to the value of the statistical statements"; indeed, the mere enumeration of figures without the facts pertaining to each individual case is liable to mislead.

Mr. Thomas Lafan.—Most of the specimens in London have, we believe, been procured through the British Embassy.

Yawning should consult his medical attendant. We do not give medical advice.

ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—I had hoped to have finished with the controversy regarding assistants, but the slip-shod manner in which "Justus" quotes from my letter represents me as saying what I never did say. I did not say I had never been an assistant, I only said I was not an assistant, and did not want to be, and this I mentioned to show that it was not the competition of the unqualified assistant that influenced me to write. As a matter of fact, I was an assistant for over four years, though how this affects the point I raised I cannot conceive.

As to "Justus" "Denying *in toto* that it is the invariable rule" for principals to palm off their unqualified assistants as doctors. He may be right, because it is possible to conceive that amongst the numerous employers of unqualified assistants there is one honest man. I said, and still say, that "it is almost the invariable rule." I have never known it to be otherwise. "Justus" misses the only point I raised—namely, the fraud perpetrated on the public by principals palming off unqualified assistants as fully qualified doctors,—and goes off into the consideration of the comparative merits of the qualified and unqualified man, a point I never intended to raise.

"Justus" asks: "Ought I to have introduced myself as unqualified assistant?" admitting that he knowingly allowed the patient to believe he was a fully qualified doctor, as he says he would probably have been "turned out" had he not done so. Whether it is wrong or right under any circumstances to act in such a manner as to knowingly and purposely mislead another I have always considered to have been settled by the Highest Authority.

I am no enemy of the unqualified assistant. The man I object to is his employer, who represents him as a doctor. Personally, I am very sorry for the poor unqualified assistant. He is kicked about and looked down upon by his employer. I should myself prefer to labour as a "casual" at the docks than to fill his shoes. The fraud he is compelled to perpetrate by his employer must, I think, in time weaken his moral perception of right and wrong.

It is in the interests of the public and the honour of the profession that I have written. If the General Medical Council will not prevent the black sheep of the profession perpetrating a fraud—especially on the helpless poor, whose means do not enable them to prosecute the said black sheep for obtaining money under false pretences—the general body of the profession should, in their capacity as citizens, get Parliament to do so.

I am, Sirs, yours truly,

February, 1891. X. Y. Z.

To the Editors of THE LANCET.

SIRS,—I trust that room will be found in THE LANCET for a reply to "A Medical Practitioner," who takes up the cudgels on behalf of irregular practice.

"Justus" says that "before the law steps in" to stop unqualified practice the public should be protected from qualified assistants, who, he says, enter the ranks ignorant of midwifery. Can "Justus" be serious, or does the word "assistant" mislead him? I presume that all qualified men, whether they be assistants or no, stand on one common footing with regard to duly authenticated knowledge of their profession. "Justus" relates a story to the effect that while an unqualified assistant he was sent for by an M.R.C.S., L.R.C.P. to remove a placenta. It is possible; but I would ask, if we are deficient in knowledge let our examinations and training be remedied, but Oh! spare us the unqualified assistant as mentor. I freely admit that unqualified assistants attend many (too many) midwifery cases. So did the immortal "Sairy Gamp"; but it is in the capacity of midwife rather than in that of skilled medical practitioner. I think that no one will be found to urge their claims to superiority in the wider fields of medicine and surgery. As one of the class who (always excepting their patients) have most reason to regret their industry and numbers—I refer to the junior members of the profession—I contend that the General Medical Council should take the matter in hand, and either give them a "local habitation and a name" in the profession or "reform it altogether."

I am, Sirs, yours faithfully,

Feb. 2nd, 1891. A QUALIFIED ASSISTANT.

THE MEDICAL INSTITUTE FOR WOMEN.

WE have received a communication from the chairman, treasurer, and hon. librarian of the Medical Institute for Women, in which they express their desire to increase the extent and value of their library, which at present is comprised in the new buildings in Euston-road. They acknowledge the receipt of valuable donations of books from members of the profession and medical publishers, and will be glad to receive further contributions from these sources.

R. H. F.—1. Malaria is unknown in New Zealand, but prevails in the northern part of Australia—viz., to as far south as 17° latitude.—2. A brief account of present knowledge concerning micro-organisms in malaria is to be found in Flügge's work (New Syd. Soc. Transl., 1890), where also full references to the literature of the subject occur. Cornil and Babes, "Les Bactéries" (3rd ed., 1890, vol. ii.), and Klebs, "Die Allgemeine Pathologie" (1887, vol. i.), might also be consulted.

NOTIFICATION AND THE INTERFERENCE OF MEDICAL OFFICERS OF HEALTH.

To the Editors of THE LANCET.

SIRS,—Will you be kind enough to give me your opinion as to the best means of stopping the following nuisance?

My assistant was called a few days ago to a child suffering from measles. The father of the child being a schoolmaster, he reported the case to the medical officer of health. The latter gentleman called, saw the child, and said that as it had previously had measles it could not have them again, that the diagnosis was a mistake, and so on. He then wrote to me, saying that he could not tell what was the matter with the child, and wanted my opinion as to whether it had measles or not. On the receipt of this letter, I went to see the child, and found it suffering from well-marked measles, its little sister being also in bed with the same disease. I wrote to the medical officer of health and told him that after his breach of etiquette I should leave it to him to settle as he liked about the closing of the school.

Can I do anything to put a stop to the annoyance caused to both my assistant and myself? Is the medical officer of health allowed to see or express an opinion on private cases reported to him? Is he justified in saying that a practitioner has made an error of diagnosis? Is he in the right when he says (as he has done in two houses lately) that no patient can have measles twice?

I may mention that my assistant is a well-qualified registered practitioner, that we have an epidemic of measles in the neighbourhood, and that several children have been sent to their homes with the measles rash out on them during the last week from the school in question.

I am, Sirs, yours faithfully,

Jan. 10th, 1891. M. A. S.

*** We had hoped that the grievance complained of by our correspondent had ceased to exist. It is quite unjustifiable for medical officers of health to interfere with and contradict the diagnosis of the responsible practitioner in attendance. It is a breach alike of courtesy and of duty. In this case the sayings of the medical officer are either misreported, or he is ill informed as to the ways of infectious disease. The occurrence of second and even third and fourth attacks of measles is well authenticated. The symptoms in this case, and the existence of a second in the house, seem to make the demonstration of the error of his opinion complete. Our correspondent should complain to the local sanitary authority and to the chief of the Medical Department of the Local Government Board.—ED. L.

PURCHASE AND SALE OF PRACTICES.

To the Editors of THE LANCET.

SIRS,—The Medical Defence Union is a valuable guard to every medical man who joins it. May I suggest that there is a matter very near home which often needs supervision? I refer to the sale and purchase of practices. No one will deny that a fair price is due to a faithful practitioner who has worked up a practice and for some reason has to relinquish it. But I contend, under the circumstances now existing, when so many men are ready to invest in practices, there is a danger of their value being over-estimated, and consequently disappointment and loss result to the purchaser. Is there not a danger of some members of our profession devoting themselves to the very unprofessional work of carrying on a practice simply with a view to put it in the market when it attains a certain supposed market value, which is often fictitious? I believe much advantage would result to our profession if selling practices by this last class of men was under some further supervision than now exists.

I am, Sirs, yours faithfully,

Haughley, Feb. 13th, 1891. ROBERT G. WHITE, M.R.C.S.

LEGAL OWNERSHIP OF PRESCRIPTIONS.

Dr. D. Hooper.—We quite agree with our correspondent. A prescription given by a physician to a patient who consults him is the property of the patient, and not of the general practitioner in attendance.

Medicus.—Our correspondent would demean himself and probably act illegally by doing so. Midwives are not expected to have any legal qualification. Medical students are not midwives, and until they have their diploma have no legal right to practise midwifery any more than surgery and medicine.

THE ANTI-STRAIN COPYING PRESS.

THIS is a press which is intended to obviate the strain which is oftentimes required when the larger forms of the ordinary copying press are employed. A mechanical advantage and a more rapid up-and-down movement are gained by means of two cogwheels of different pitch, which are placed at the upper ends of two screws. The mechanical principle upon which this depends is, of course, well known, but the application of it is, as far as we know, new. The inventor—Mr. P. V. Lomas, of 5, Pall Mall—states that rupture is not unknown as the result of using existing presses. But a more general advantage is, we imagine, offered by its use to those whose physical strength is not equal to applying the required amount of force with comfort in the use of ordinary patterns.

Dr. E. May is thanked for his letter. We fully recognise the value of his suggestions, and concur with him in the opinion that if it were possible to attack the disease at its *earliest* appearance its ravages might be materially mitigated. We also feel certain that this principle is a guiding one in the treatment of diphtheria, and is more generally adhered to than he fancies; but unfortunately the poison is so rapidly formed and absorbed that the action of local remedies is often rendered useless, and the only measures remaining are those which seek to support the vitality of the organism which is being depressed by the virus.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Jessett, London; Dr. Lewers, London; Sir E. H. Sieveking; Mr. F. Treves, London; Dr. Horrocks, London; Dr. G. Macdonald, London; Mr. H. Lupton, Stratford-on-Avon; Dr. G. E. Herman, London; Dr. Lauder Brunton, London; Dr. Charteris, Glasgow; Dr. Herschell; Dr. E. W. White, London; Mr. T. P. Wright, St. Neots; Mr. G. O. Jacobson, Huntingdon; Dr. Cullimore; Dr. Johnson, London; Dr. Whitehead, Pitone; Dr. Kaye; Mr. T. H. Pounds, Derby; Mr. Warner, Sheffield; Dr. G. Johnson, London; Dr. Auld, Glasgow; Messrs. Krohne and Sesemann, London; Mr. Kingdon, Nottingham; Herren Flatau und Mankiewicz, Berlin; Dr. S. O. L. Potter, London; Messrs. Beale and Sons, Brighton; Mr. Tobin, Dublin; Mr. Laffan, Cashel; Mr. Bland Sutton, London; Dr. E. May, Hanwell; Messrs. Smith, Elder, and Co., London; Dr. Arnison, Newcastle-on-Tyne; Messrs. Blondeau et Cie., London; Mr. R. G. White, Haughley; Messrs. Mitchell and Co., London; Mr. Boobbyer, Nottingham; Messrs. Clark, Son, and Platt, London; Dr. Nason, Nuneaton; Dr. C. Charles; Dr. Fletcher Beach, Dartford; Mr. W. J. Reed, Burton-on-Trent; Messrs. Keith and Co., London; Mr. Barling, Stoke-on-Trent; Messrs. Bates and Co., London; Mr. W. R. Cornish; Dr. Bampton, Ilkley; Dr. Fletcher Little, London; Dr. J. W. Pratt, Boston, Mass.; Messrs. Oliver and Boyd, Edinburgh; Mr. H. W. Street; Mr. D. Biddle; Dr. Hingston Fox, London; Dr. Macdougall, Cannes; Mr. Leet; Messrs. Barker and Sons, London; Mr. Cheesbrough, Brampton; Messrs. Shape and Co., Preston; Dr. Windle; Herr Bornemann; Messrs. Richardson and Co., Leicester; Mr. Phipman, Ottawa; Mr. Thatcher; Dr. Hartley, Liscard; Mr. Roberts, Uxbridge; Dr. Hodsdon, Edinburgh; Mr. F. A. Davis, London; Mr. Seale, Peckham; Mr. Girling, Halifax; Mr. T. B. Browne, London; Mr. Saunders, Manchester; Mr. Warburton, Treherbert; Mr. Kennedy, London; Mr. Buckley, Oldham; Mr. Guthrie, London; Mr. Walton, Highgate; Mr Spowart, Sheffield; Mr. G. C. Gabriel, Cairo; Mr. Taylor, Hampstead-road; Dr. Moorhead, Nottingham; Mr. Delany, St. Helens; Dr. Owen, co. Kerry; Dr. Lawrence, Chepstow; Mr. Dobbin, Brompton; Mr. Merck, Darmstadt; Mr. J. Steavenson, Glasgow; Dr. Haslett, Liverpool; Mr. Boyd, Denmark-hill; Mrs. Meredyth, London; Mr. Hannaford, London; Mr. Orr, Wanstead; Dr. Skrimshire, Blaenavon; Messrs. W. H. Smith and Son, London; Mr. Shaw, Worthing; Mr. Hornibrook; Messrs. King and Chasemore, Horsham; Mr. Thompson, Buxton; Messrs. Cooke and Sons, Winsford; Mr. Campbell, Kensington; Messrs. Dawson and Sons, London; Herr. G. Thieme, Leipzig; Messrs. Wright and Co., Bristol; Mr. Odell, Torquay; Herr Guttmann; Messrs. Coxeter and Co.; Mr. Macdonald, Gosport; Mr. Burgess, Walworth; Mr. Perkins, Newport; Mrs. Gregory, Swindon; Mr. Birchall, Liverpool; Mr. W. R. Liston; Medicus; S. H. J.; Tenens, London; Matron, Southern Hospital, Manchester; A. B. C., London; Smedley's Hydropathic Establishment, Matlock; Ilex, Taunton; A. B., Leeds; Advertising and Address Co., London; X. Y. Z., London; W. M. E.; Clerk, Leeds Union; Sister Musgrave, Bolton; The Director-General of the Navy Medical Department; Scrutator; Harvard Co., Ohio; H. F. S.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Rynne, Ennis; Mr. Pearson, Newry; Mr. Lockwood, Huddersfield; Mr. Sheen, Worcester; Mr. Dent, York; Mr. Chubb, Devonport; Mr. Cuthbertson, Stirling, N.B.; Messrs. Paternoster and Hales, Hitchin; Mr. Feeny, Staffordshire; Messrs. Powneeby and Co., London; Dr. Bailey, Staffs; Mr. Clark, Cambs; Messrs. Down Bros., Borough; Mr. Detmold, Bournemouth; Messrs. Whitehead and Co., London; Messrs. Richardson, Liverpool; Messrs. Gale and Co., London; Mr. Ward, Kent; Mr. Webb, Devon; Messrs. Sharp and Co., Glasgow; Mr Thompson, Derbyshire; Messrs. Hertz and Collingwood, London; Mr. Davenport, London; Messrs. Howlett and Son, London; Mr. Cross, Ormesby; Messrs. Bullock; Messrs. Back and Co., Bishopsgate; Mr. Tyte, Minchinhampton; Messrs. Watkins and Osmond, London; Dr. Swayne; Dr. Woakes; Mr. Basu, Patna City, India; Mr. Bayliss, Slough; Mr. Saunders, Eton; Mr. Brown, Streatham; Mr. Howells, Aberdeen; Mr. Harries, Sussex; Dr. Fox, London; Mr. O'Meara, Leicester; Dr. Stanley, Sheffield; Mr. Blount, Paris; Mr. Cushney, Cobham; Mr. Watling, Hastings; Mr. Jones, Towcester; Mr. Wells-Bladden; Messrs. Lumleys, London; Mr. Bull, Southampton; Miss Symons, Southport; Messrs. Giles, Schacht, and Co., Bristol; Mr. Shean, Northumberland; Messrs. Robinson and Stannard, London; Mr. Heywood, Manchester; Messrs. Slinger and Son, York; Mr. Flint, London; Mr. Thin, Edinburgh; Messrs. Cox and Co., Brighton; Mr. Darke, London; Mr. Davis, Cornwall; Mr. Fox, Child's-hill; Mr. Howells, Aberdeen; Dr. Davies, Bridgend; Rev. A. Tooth, Croydon; Mr. Lyston, Nottingham; Dr. Deane; Dr. Davies, Longton; Dr. Allingham, London; Dr. Sankey, Shrewsbury; F.; C. B. O., London; T. F. A., Cheshire; Reliable, London; Express Dairy Co., Bloomsbury; J. C., Dublin; Secretary, Midland Skin and Lock Hospital, Birmingham; Sister, London; Vere, London; Bryant Co., Toronto; C. W. C., Devonport; Newcastle, London; Midland, London; P. C. E., Rickmansworth; Gavel, London; General Medical Council, London; B. S., York; Ajax, London; Matron, Stockton-on-Tees; Gamma, London; Cromwell House, Northallerton; A. B. C., Winchester; Delta, London; M.B., London; Spes, London; C. W., Southport; Dr. Medico, Bradford; E. S., Hammersmith; Medicus, London; A. F., London; Surgeon, Halifax; Alpha, Liverpool; Easy, London; A. B, Truro; R. M. O., London; Flora, London; W. E. A., Tewkesbury; Expertus, London.

NEWSPAPERS.—*Weekly Free Press and Aberdeen Herald, Windsor and Eton Express, City Press, Reading Mercury, Surrey Advertiser, Local Government Chronicle, Hertfordshire Mercury, Liverpool Daily Post, Sunday Times, Builder, Mining Journal, Leeds Mercury, Metropolitan, West Middlesex Standard, Broad Arrow, Yorkshire Post, Sheffield Daily Telegraph, Bristol Mercury, Architect, Chemist and Druggist, Spectator, Guy's Hospital Gazette, Liverpool Mercury, Pharmaceutical Journal, West Middlesex Advertiser, Law Journal, Saturday Review, Western Mail, Army and Navy Gazette, Maidstone Journal, Scotsman, Court Journal, Vegetarian, Scarborough Evening News, Brighton Gazette, Toronto Globe, Walton Gazette, South-Eastern Gazette, Madras Times, Weekly Times and Echo, North British Daily Mail, Hull News, Isle of Man Examiner, Taunton Courier, Liverpool Courier, Cambridge Express, Mansfield Reporter, Waterford Standard, Sheffield and Rotherham Independent, Border Advertiser, Fifeshire Journal, Liverpool Journal of Commerce, Dundee Advertiser, Bombay Gazette, &c.*, received.

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